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# RAIN

July/August 1984

Nancy & John Todd:  
Sacred Ecology  
Fukuoka's Last Straw  
Computer Co-ops



Volume X, Number 5



# RAIN

Volume X, Number 5  
July/August 1984

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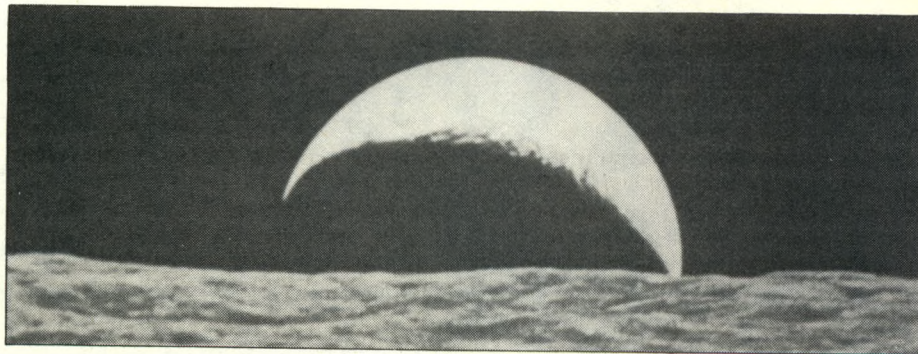
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RAIN magazine publishes information that can help people lead simple and satisfying lives, make their communities and regions economically self-reliant, and build a society that is durable, just, amusing, and ecologically sound.

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Cover: Masanobu Fukuoka  
(photo by Halgar Shorter)



*The earth seen from the moon (FROM: A Hundred Billion Stars—see page 27)*

## RAINDROPS

"What do you call the day after it's rained for two days?" Alan asked at one of our Monday morning staff meetings. (The answer is Monday.)

We haven't been showered with promotion contest entries (details in RAIN X:3, page 2), however. Is anyone reading RAIN? We've received only two or three entries so far, so we're extending the deadline two months—to August 1. The object is to develop a low-cost, well thought-out plan for making RAIN economically self-reliant. As things stand now, subscriptions pay for our printing and postage costs. Rent, utilities, overhead, and salaries (those of us who are paid get about \$2-\$3 per hour, effectively) must be subsidized in some way. We need to hear from you in order to decide if we should continue publishing. We have only about 1300 subscribers now, and we wonder if it's still worthwhile to talk to the same small, knowledgeable audience. Many areas we used to cover have now been appropriated by specialized journals, and many ideas have entered the mainstream. (Madison Avenue market researchers use living-lightly and bioregional categories to advertise products.) Has RAIN outlived its usefulness? (Send us your promotion ideas today!)

Help us get the ideas into mainstream publications, too. Send a copy of RAIN to your local newspapers, and write letters to the editors of the papers telling them why you read RAIN. Encourage them to cover the same kinds of features that we include. Have them write to us for permission to excerpt articles. Talk to librarians about RAIN. Give RAIN subscriptions and publications as gifts.

In the last issue, we forgot to introduce a new name in the staff box. Linnea Gilson has moved on after spending almost four years as our graphic designer (that's longer than most people have lasted here). She did a wonderful job and helped RAIN weather several major staff

transitions. Our new graphic designer, Susan Applegate, is a book designer in Portland.

Three new interns! Both Lance Regan and Steve Manthe come to us from Western Washington University (double-double-u-u) in Bellingham. Lance graduated from Fairhaven College with a self-designed major in social ecology, and Steve graduated from Huxley College of Environmental Studies with a major in environmental studies and mass communications. Within a month, Lance had introduced orderliness to our periodicals collection, and Steve had rescued our library from stacks of unfilled books. Our third intern, Katherine Sadler, is focusing on promoting the magazine. Her background includes promotion for arts organizations in Michigan.

Sabbaticals anyone? Steve Johnson continues to work on community computer projects while he is on leave from RAIN. Kris Nelson will be spending the summer on Vancouver Island. —TK

For those who wonder: The last issue of your subscription is indicated by the four-digit number in the upper right-hand corner of your mailing label (for instance, 10 03 means your sub expires with volume 10, number 3). We do our best to notify you when your sub is expiring. We send out a flier with a postage-paid envelope before your last issue reaches you, we stamp "Renew now, This is your last issue" on your last issue, and we send another flier and postage-paid envelope to those who haven't already renewed after their last issue. Also, we mail RAIN at the nonprofit third-class postage rate. Under most circumstances, the Post Office will not forward this class of mail. If you wish to receive all your issues of RAIN, you must notify us of your change of address. Please remember that we need your old address as well as your new address. —AL



# LETTERS

I strongly disagree with your reviewer, Jeff Strang, that *The Global Brain* by Peter Russell (Tarcher, 1983) "says it all" and is "the ultimate synthesis." Rather, it is merely an introduction to one form of synthesis.

For those who seek a higher, more adult level of evolutionary thought, I recommend H. G. Wells' *World Brain* (Doubleday, 1938) and Oliver L. Reiser's *Cosmic Humanism* (Schenkman, 1966). Neither author is mentioned by Russell. If we forget—or never know—that such outstanding work existed, we are bound to reinvent our intellectual wheels; in Peter Russell's case, it is done so at a distinctly inferior level.

Michael Marien  
Editor, *Future Survey*  
LaFayette, New York

I read the article entitled "Water Under The Bridge: Experimenting With Microhydro" in your June/July issue.

Please keep in mind that hydro is not a panacea, and in fact, it has the potential of delivering devastating impacts to the waterways of Oregon. As a prime example, the 35 miles of the Deschutes River in Deschutes County now have applications for 15 hydroelectric projects. Twelve of those 15 would create new structures in the river, and all but two would permanently divert the river's water through enclosed pipelines for a considerable distance before being returned to the river through turbines. The community here is panic-stricken.

Oregon's Hydroelectric Siting Act was adopted in Oregon in 1931. During the 50 years from 1931 to 1980, 256 applications for hydroelectric development were submitted. During the last three years alone, 300 additional applications have been submitted.

We have a major problem!

Please don't bill hydroelectric generation as any panacea, especially in this period of surplus.

Representative Tom Throop  
Deschutes and Klamath counties, Oregon

I recently read your article "Hidden Costs of Housing" in the March/April issue of RAIN. You have certainly raised a number of points concerning home financing and the continuing disappearance of the American "dream" of home ownership. I must say, though, that the political realities of "eliminating" realtors and traditional bank financing from the picture were not fully considered. The next step would have to be a total restructuring of our society, its goals, its future,

its premises for being. I await your next installment.

As for the Revolving Loan Fund idea: Several rural preservation companies in New York state have developed and administer small funds for housing-improvement activities. These have been set up to provide low-cost capital (6% in our case) to low- and moderate-income rural homeowners and renters. Though our fund is relatively new, we look forward to a time when it will aid residents not only in housing improvement, but in home ownership and cooperative purchasing.

Glenn Gidaly, Program Coordinator  
Orange County Rural Development  
Goshen, New York

The interview with Joel Schatz on Peace through Communications (RAIN X:2) was exciting. Strangely, no mention was made of the language problem. Perhaps Schatz speaks Russian, and therefore had no problem. Sadly, I do not. I have studied eight languages, which has brought me many valuable contacts, yet I am often struck with how many people I can't talk with. I wonder how the school children who will be connected by the proposed space bridge will communicate.

Could an internationally adopted language solve this problem? Although it would be convenient for us to push for the use of English for all international communications, it is charged with a great deal of cultural bias. If we are dedicated to world-wide respect and cooperation, it is unfair to demand that everyone else learn our language. We should be ready to meet everyone at least halfway.

Perhaps this example shows how easy it is, even for those striving to find new, positive ways of living, to get caught in old, counter-productive thought patterns. As a forum for ideas, RAIN gives us a chance to learn from each other and to form a more complete, wise, integrated community.

Derek Roff  
Albuquerque, New Mexico

You're right, Derek, English is biased toward American/Western values in international communications, and the problem of language in cross-cultural computer communications deserves further discussion. We included a description of Esperanto—the only thriving international language without a nationality—in the Peace Communications access following the interview with Joel. The children in the proposed interactive video

exchange would use translators, for now. My dream is that one day all school children and their parents will learn a neutral language like Esperanto. —KN

After reading your April/May issue, the following thoughts came to mind. The first is that I find it interesting to note that a lot of the folks who were writing about a.t.—windmills, composting toilets, you name it—several years ago are now writing about "community" in one form or another. Instead of finding my mail packed with conference announcements for alternative wholistic solar composting gardening get-togethers, it seems like a week doesn't go by without getting one for a meeting on some aspect of community development.

Not that this is all bad, mind you. It's just that it's getting a little tiresome recycling this growing wardrobe of the "Emperor's new clothes." What this avalanche of good intentions seems to say to me is that folks are finding it difficult to form the kinds of friendships that help them to sail through the storm. Attempting to create "community" is nothing new in human history, just as the common sense implicit in the notion of a.t. has been lurking for years in the string collection in your grandparent's kitchen.

I wish that just once, I'd pick up an article on "community," or an announcement for a conference, and find there an acknowledgement that friendships are the building blocks of communities, and that the search for "community" begins not in the pages of journals, or in some intergalactic network, but over your back fence.

The second thought has to do with RAIN. Where are you headed? What niche are you trying to fill? After reading this issue and the plans for the next, it's not clear to me what you're trying to accomplish. The fact that everything-is-connected-to-everything-else shouldn't necessarily make everything relevant to your pages . . . other bigger, better funded groups already do this to the hilt. As Clint Eastwood says in a million towns around the globe, "Make my day." Surprise me. Take a stand, any stand . . . I'll still love you. I might not read you, but at least I'll be able to tell you why.

Ethan Seltzer  
Portland, Oregon





# Ecology as the Basis of Design

by Nancy Jack Todd and John Todd

More than a decade ago, as I was reading the authors' biographies in *Scientific American*, I discovered that John Todd was a co-founder of the New Alchemy Institute. As I subsequently read more about the institute, its work intrigued me. New Alchemy's motto was "To restore the land, protect the seas, and inform the Earth's stewards." The laboratories where they tested and displayed their ideas about integrated living systems were called Arks. Here were professional scientists who were redefining the role of the scientist, venturing into new areas, and integrating their knowledge. In *Bioshelters, Ocean Arks, City Farming*, Nancy Jack Todd and John Todd present a synthesis of what they have learned over the years.

Ecological design, according to the Todds, is "design for human settlements that incorporates principles inherent in the natural world in order to sustain human populations over a long span of time. This design adapts the wisdom and strategies of the natural world to human problems." The nine precepts of ecological design, which the Todds develop and explain in this book, are:

- ☐ The living world is the matrix for all design
- ☐ Design should follow, not oppose, the laws of life
- ☐ Biological equity must determine design
- ☐ Design must reflect bioregenerativity
- ☐ Projects should be based on renewable energy sources
- ☐ Design should be sustainable through the integration of living systems
- ☐ Design should be coevolutionary with the natural world
- ☐ Building and design should help heal the planet
- ☐ Design should follow a sacred ecology

In the section on biological equity, the Todds relate the fascinating story of their "Biological Hope Ship": "The idea was that the boat would produce and transport biological materials like seeds, plants, trees, and fish to impoverished areas with the hope of reviving the local biological support base and thereby improving the means for the human population to sustain itself." The concept evolved into the *Ocean Pickup*—intended to be as useful as its land counterpart. Several technological innovations helped make the ship light and sturdy, as well as inexpensive and easy to build. (For more information, write to Ocean Arks International, 10 Shanks Pond Road, Falmouth, MA 02540.)

In the first excerpt below, the Todds demonstrate their conviction that "an area as comprehensive as a landscape can in many cases be restored with a wise use of scientific information and biological tools in place of capital-intensive strategies."

The second excerpt—which the Todds use to illustrate their ninth precept—echoes the second part of the book, "Redesigning Communities." There is a lot of useful information here, particularly on growing food and purifying water in the city.

If there are any flaws in the book, they are in the last chapter, "The Surrounding Landscape," which is considerably weaker than the rest of the book. Here, the Todds leave their main areas of expertise to discuss the history of agriculture and the nuclear risk.

In all, this book is a valuable contribution. How wonderful it would be if the Todds' precepts of ecological design were part of everyone's education! —TK

Excerpted by permission of Sierra Club Books from *Bioshelters, Ocean Arks, City Farming*, by Nancy Jack Todd and John Todd, 1984, 224 pp., \$10.95 from: Sierra Club Books, 2034 Fillmore Street, San Francisco, CA 94115.



## Salt Marsh Restoration

Although there are few areas in the world where the primal ecological integrity has not been violated, it is our hypothesis that there is a chance that the ancient ecology lives on, but in scattered forms—in bits and pieces in various parts of the world—where it is available to be reassembled. Taking as an example the depleted shores and waters of the Mediterranean, and envisioning how magnificent they must have been before the area fell heir to its destiny as the cradle of our civilization—there are other environments around the globe analogous to that of the Mediterranean. Some of the species differ somewhat but similar life forms with comparable structural relationships exist in parts of California, Chile, Australia, Africa, and the Indian subcontinent. It might be possible that organisms gathered from such areas combined with those in the Mediterranean area itself contain, in aggregate, a sufficient array of species from which to restore or recreate the ancient ecological integrity of the region. We have drawn up a pilot project to begin to tackle a project of such vast proportions, one that integrates our experience in biotechnology and the [tree] replanting ideas of [Elzéard] Bouffier, [Richard] St. Barbe Baker, and Wendy Campbell-Purdy [see *Trees* access].



The first step would be to create salt marshes in low-lying valleys. To do so we would install New Alchemy sail-wing windmills to pump sea water into low-lying coastal valleys. The sea water would flow by gravity back to the sea, the windmills providing a technological analogue of tidal action. The newly created salt marshes would then be planted with a variety of organisms and seeded with marine creatures collected from relic Mediterranean marshes. At this juncture ecologically based mariculture could be undertaken to provide the restoration process with an economic base.

As the salt marsh becomes established, the plan would be to plant brackish-water-tolerant plants, including the commercially important carob tree, around the edges. Many of these salt-tolerant plants would serve as an ecological beachhead for less tolerant plants on adjacent ground above. As the salt marshes start to act as catch basins for seasonal rains, this process will speed up. The marsh would begin to host a wide diversity of life forms, moving outward from the center, which in turn could trigger a more ecologically complex restoration cycle. The marsh complex would have the additional benefit of enhancing nearby marine life by acting as a nursery for many organisms that spend much of their adult lives in the sea.

We have mapped out a further restorative strategy that is more technological and would be particularly applicable to arid or impoverished areas. Bioshelters would be constructed for distilling sea water with the long-range intention of nurturing young forests. The bioshelters would be approximately fifty feet in diameter and use New Alchemy's pillow dome structure. About a dozen would be pitched in a circle, like an Indian encampment. Inside the central zone of each structure would be the translucent solar tanks or solar-algae ponds to grow fish and to heat and cool buildings.

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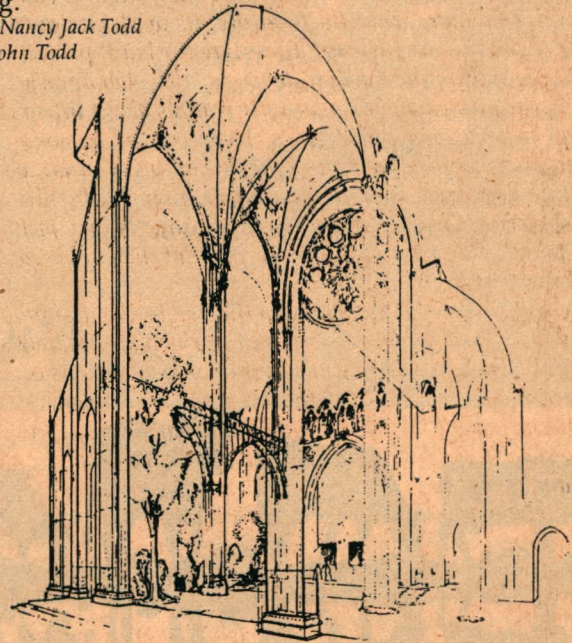
*There is a chance that the ancient ecology lives on—in bits and pieces in various parts of the world—where it is available to be reassembled.*

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During the day, relatively cool sea water would be pumped into them. The temperature differential between the water in the ponds and the air would be enough to cause the tanks to sweat fresh water down their sides onto the ground. At night the air would lose its heat to the atmosphere and the moisture-laden air within would condense on the inside of the bioshelter skin and "rain" down onto the ground inside the periphery of the building. Trees and other plants would be planted in the wet zones created by the "weeping" of the bioshelter. Once their roots were established and compost-rich soils created, the protective embryo of the bioshelter could be lifted off and taken to a new site to repeat the process, leaving behind the newly liberated

ecosystem. Hardy trees could be planted adjacent to this nucleus to further diversify the restoration process. Each bioshelter might be in place for two or three years before being moved to the next locale. There are many possible variations on the salt marsh and bioshelter schemes and a number of intermediate approaches. Taken together, they add up to an assembly of biotechnologies which can serve the restoration process—early catalysts in the coevolutionary process of planetary healing.

© 1984 Nancy Jack Todd  
and John Todd



Cathedral bioshelter, St. John the Divine (FROM: Bioshelters, Ocean Arks, City Farming)

## Cathedral as Bioshelter

... The Cathedral Church of St. John the Divine, the largest Gothic structure in the world, has unfolded ecology into its expansive program. The Cathedral is rivaled in size and splendor only by the breadth of the mission that has been forged for it by a succession of farsighted men. Under the present leadership of the Right Reverend Paul Moore, Bishop of New York, and the Very Reverend James Paul Morton, the Dean of the Cathedral, St. John the Divine is pursuing a course that honors the tradition inherent to its history and its architecture. In its time, the medieval cathedral was the center of its community, administering to all aspects of human life. Quoting Dean Morton, "Education, healing, the guilds, the arts, the market were all tied to the Cathedral. It was the symbol of the perfection of urban life." Accordingly, at St. John the Divine the arts, crafts, world peace, social justice, and ecological concerns are all part of the fabric of Cathedral life.

The Cathedral has in residence its own drama, dance, and music groups, and is, in addition, frequent host to performances by innumerable other groups, from the internationally known to the dedicated amateur. These people use the church as much more than space—they are invited to make a contribution to a community integrating the sacred and secular.



The medieval past is honored at the Cathedral, and so is the dawn of the solar age. We have proposed that the Cathedral be solar heated, as the cost of heating it is growing rapidly. Our idea is to replace the copper sheathing on the southern face of the existing six-hundred-foot-long roof with glass. Such a rooftop greenhouse is to trap warm air which would be ducted down into the subterranean vaults of the Cathedral for later use in heating. Our plan also calls for the interior of the roof areas to be used for the mass propagation of fruit, nut, and ornamental trees, which could be used by millions to help reforest New York.

The architect David Sellers grafted our ideas onto a new architectural form for the Cathedral. He has proposed that the south transept, which was never built, be redesigned as a Gothic bioshelter. It is named the Rene Dubos bioshelter, honoring a man who fused Christian tradition and ecological thought. David Sellers designed

the south transept with a glazed roof through which solar heat is ducted to heat the nave. Sellers' designs place solar hot water collectors in the existing south roof to heat water to be stored in a vast chamber under the crossing. In this way summer sun would be used for winter heating. The bioshelter design expresses a re-emerging relationship between Christianity and ecology. The chapel contains a garden comprised of an ecosystem specifically adapted to the Cathedral's space and climate.

As the stones are being cut for these towers, under construction again after a fifty-year lull, St. John the Divine grows daily closer to its own idea of a Cathedral. It will be a statement in stone embracing past and future, serving the people of the Diocese of New York and of the world. □ □

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## ACCESS: Land



"My Farm is Safe Forever," by Noel Perrin, *Country Journal*, April 1984, \$2.50 from:

**Country Journal**  
205 Main Street  
Brattleboro, VT 05301

Every time I go back to New Jersey, I discover another shopping center or bridge or condominium where before there had been fields or woods. Well, development is not inevitable. If you own rural land, and you'd rather see it used as farm or woodlot than as a parking lot in years to come, you probably can protect it—and make money in the process. Noel Perrin gave his Vermont town development rights to his 90 acres, and thereby earned a \$27,800 deduction on his income tax (the difference between the land's value as farmland and its value as developed land). The immediate benefit was a lower annual tax rate, and he retained every right of ownership aside from development rights; he could even sell the property.

Forty states have some legal protection strategy for open land. (Vermont's version is called the Current-Use Assessment Program.) In most cases, the town does not lose tax revenue on the land because the state makes up the difference in tax revenues. In the long run, land protection holds down your neighbor's taxes, too, since the town saves money on schools, roads, and services. In Suffolk County, Long Island, the county raised \$60 million to buy development rights on about 12,000 acres of farmland—and the county expected to save \$60 million in services that wouldn't have to be provided.

Development is costly in other ways, too. Perrin discovered that in the last decade, Orange County, Vermont, has lost 153 farms to development. Having spent 20 years restoring his land "to a beautiful and moderately productive farm, [Perrin] didn't relish the idea of bulldozers leveling [his] carefully rebuilt stone walls or black-toppers advancing into the orchard." Productive land is a

precious resource. This article can point you toward strategies for keeping *your* land safe forever. —TK

*Sacred Cows at the Public Trough*, by Denzel and Nancy Ferguson, 1983, 250 pp., \$8.95 from:  
**Maverick Publications**  
Drawer 5007  
Bend, OR 97708

The adventures of the American cowboy have been immortalized in countless late-night westerns and perpetuated on drugstore bookshelves. Blinded by this romanticized version of history, few Americans realize the damage the cattlemen have caused and continue to cause in public lands of the arid west. As former managers of the Malheur Field Station in Southeast Oregon's Malheur Wildlife Refuge, Denzel and Nancy Ferguson have observed the declines in range productivity, increased soil erosion and desertification, and degradation of wildlife habitat that greedy and short-sighted western stockmen have brought on through overgrazing. In this book, the Fergusons detail how a privileged minority is allowed to monopolize the use of public lands for private gain, while extracting a hefty subsidy for range "improvements" from an unconcerned and uninvolved public. They relate the ecological devastation that occurs when the carrying capacity of the land is ignored. *Sacred Cows at the Public Trough* is an important book for anyone concerned about wildlife, desertification, and erosion in the public lands of the West. —SM



## ACCESS: Trees

*Trees: Guardians of the Earth*, by Donald J. Nichol, 1983, 28 pp., \$3.50 from:  
Lorian Press  
PO Box 147  
Middleton, WI 53562

This short booklet is both a tribute and an urgent appeal—a tribute to the vital role trees play in the earth's ecosystems and in the health of the human spirit, and an appeal to us to save the planet, and ourselves, by saving trees. Trees not only play a pivotal role in regulating the earth's water cycles and oxygen-carbon dioxide ratios, and in building and protecting topsoil, but they also play an essential role in enriching the human experience.

In the first chapter, "The Alchemists of Nature," Nichol details the vital ecological functions of trees. The book also includes profiles of Dorothy Maclean (one of the founders of Findhorn) and Dr. Richard St. Barbe Baker. A visionary of sorts, St. Barbe Baker did much to combat the rampant mismanagement of the earth's forests in the past century.

Elsewhere in the book, the author reminds us that trees provide an important "presence" in our hurried lives and that trees and nature were once a part of our human identity. Trees, he says, represent a form of intelligent life, yet we all too often regard them as little more than an economic resource.

The nice thing about this book is that it's not a diatribe against or a worthless indictment of present forestry practices. Its aim is to educate and inspire. In doing so, it will put many of us on our way toward helping to arrest the problem of our planet's shrinking forests. —CB

*The Man Who Planted Hope and Grew Happiness*, by Jean Giono, \$1 from:  
Friends of Nature  
c/o D. Smith  
Brooksville, ME 04617

This is the inspirational story of Eléard Bouffier, the Johnny Appleseed of France, who planted acorns wherever he went—100 acorns per day—in southern France. The acorns grew into trees and turned a desolate region into a lush, beautiful region. This story has been reprinted numerous times (*Vogue*, March 15, 1954; *The Next Whole Earth Catalog*, 1980, \$12.50 from CoEvolution Quarterly, PO Box 428, Sausalito, CA 94966) and was reviewed in RAIN II:6. —TK



FROM: *Trees: Guardians of the Earth*

**Richard St. Barbe Baker Foundation**  
417 Cumberland Avenue South  
Saskatoon, Saskatchewan S7H 2L3  
Canada

Richard St. Barbe Baker was born in Hampshire, England, in 1889, and he died in Saskatoon, Saskatchewan, in 1982 (see RAIN IX:2). Founder of Men of the Trees, St. Barbe Baker spent his life planting trees and forests and inspiring others to perpetuate the forests.

The Richard St. Barbe Baker Foundation held its founding conference June 4-5, 1984, at the University of Saskatchewan. St. Barbe Baker was a member of the first graduating class of the university in 1912, and his archival collection, the Baker Papers, will be kept in the University Archives. The purpose of the foundation is "promoting responsible maintenance and renewal of the world's tree resources." It will not have a membership, but will offer nongovernmental organizations administrative, technical, and educational assistance related to forestry and trees, focusing on Canada and developing countries.

In conjunction with the conference, the foundation has published a compilation of interviews, articles, and other material about St. Barbe Baker's life and work (*Man of the Trees: Richard St. Barbe Baker*, edited by Hugh Locke, 1984, 32 pp.). This collection gives a good sense of St. Barbe Baker's deeply rooted dedication to trees and his commitment to planting trees around the world. In his *New Earth Charter* (1950), St. Barbe Baker wrote, "I

believe in the traditional ideal that our fields should be 'fields of the woods,' by which is meant landscape farming of every valley and plain, with woodlands in high places, shelter belts, nut and fruit orchards (of mixed species) and hedgerow trees everywhere." —TK

**"Wanted: Seeds, and Picks and Shovels,"** *MANAS*, volume 23, number 11 (March 14, 1979), 30¢ from:  
Manas Publishing Company  
PO Box 32112  
El Sereno Station  
Los Angeles, CA 90032

"Twenty years ago, an Englishwoman, Wendy Campbell-Purdy [or -Purdie], having heard Richard St. Barbe Baker say that the spread of deserts could be stopped by a green wall of trees, bought a one-way ticket to North Africa and set to work planting trees," begins the article. She planted trees in Morocco and Algeria, then founded a trust called Tree of Life to continue the work. *MANAS* cites a booklet, *Tree of Life* (c/o Coutts & Company, Duncannon Branch, 440 Strand, London WC2R 0QS, United Kingdom), for further information.

By the way, *MANAS* is my favorite source for new ideas and examples of intelligent idealism. I usually hear of interesting projects in *MANAS* first—it's published weekly (except July and August) and is a real bargain at \$10/year. —TK



## ACCESS: Central America

While some of us in North America are seeking to develop lifestyles, technologies, and social institutions that enhance community control and self-reliance, the people of Central America are engaged in their own struggles for self-determination. Our efforts are related: The people of Central America (and other Third World countries) benefit from our efforts by developing ways of life that do not depend on the exploitation of their labor, resources, and markets. They also benefit from alternatives they develop themselves. Reliance on fossil-fuel imports and energy- and chemical-intensive agricultural systems hurts the balance of trade of Third World countries and decreases the long-term stability of their institutions.

But development questions in Central America are complex and cannot easily be separated from political issues. For example, in countries such as El Salvador and Guatemala, the development of "alternative" methods of production either plays into the hands of the ruling elite or endangers the lives of those involved. In Guatemala, 80% of the land is held by 2% of the population, and the majority of people are landless; new technologies cannot offer much of a solution in this context. Only structural changes in the economic and political systems can lead to a society where freedom, justice, and ecological wisdom prevail.

The following list of resources can help North Americans better understand and assist in the crucial struggles of our neighbors to the south. —LR

**What Difference Could a Revolution Make? Food and Farming in the New Nicaragua**, by Joseph Collins, with Frances Moore Lappé and Nick Allen, 1982, 185 pp., \$4.95 from:

Institute for Food and  
Development Policy  
1885 Mission Street  
San Francisco, CA 94103

Joseph Collins, of the Institute for Food and Development Policy, was invited to Nicaragua in August 1979 by the one-month-old Sandinista government. The Sandinistas were forming an international advisory panel of people who had experience in agrarian reform and food policy. This book documents his perspective on the first three years of Sandinista attempts to create a new agricultural base for the emerging revolutionary society.

We learn of the tremendous challenges the Sandinista leadership has confronted in trying to reform an agricultural system historically noted for gross inequities and exploitation of poor laborers. The Sandinistas faced many dilemmas. How



could they balance their policy of the "logic of the majority"—meaning that the interests of the poor majority would take precedence over the interests of the wealthy elite—with their policy of "national unity"—their attempt to maintain support for a program of reconstruction among both the capitalist producers and the peasants? Also, how could they balance the need to grow food crops to feed the hungry with the need to grow export crops to obtain necessary foreign exchange? Significant tradeoffs were necessary. To further complicate matters, they had to make these difficult decisions in an atmosphere of increasing counter-revolutionary aggression and an economic destabilization campaign conducted by the U.S.

What emerges is a picture of the Sandinista government in stark contrast to the one painted in the U.S. media. Collins shows that the Sandinistas, rather than being doctrinaire revolutionary ideologues, are open-minded and pragmatic about confronting Nicaragua's problems, as their openness to outside advisors indicates. Rather than following in the footsteps of any other revolutionary model—Soviet, Cuban, or otherwise—the Sandinistas seek to create a genuinely Nicaraguan revolution, based on their Christian heritage and Sandino's principles of national self-determination, democratic participation, and economic justice.

Collins concludes that the Nicaraguan revolution demonstrates that there are more than two models for development, and that it could come to serve as an example to other Third World countries seeking to take control of their destiny—if only given a chance. —LR

*Science for the People*, November/  
December 1983, \$2.50 from:  
**Science for the People**  
897 Main Street  
Cambridge, MA 02139

This entire issue is devoted to positive developments in Central America. Five articles are about Nicaragua, including coverage of the new health care system, integrated pest management practices, and efforts to attain energy self-sufficiency. Another article is about health care in one of the rebel-controlled zones of El Salvador. All the articles are highly informative. —LR

**"Revolutionary Sandinistas Back Wide Range of Renewables,"** by Andy Feeney, *Renewable Energy News*, March 1984, \$2.50 from:  
**Renewable Energy News**  
PO Box 690  
Ogdenburg, NY 13669

"One of the most ambitious renewable energy development programs in the Western hemisphere may get under way this year in revolutionary Nicaragua." Thus begins this recent article by Andy Feeney. What prompts the Sandinista government to pursue such a program is not merely concern about the eventual depletion of global fossil-fuel reserves. One major concern is that 40% of Nicaragua's export income currently goes toward petroleum imports. Additionally, last October, CIA-backed contras destroyed one of the country's main fuel storage facilities and 135 million gallons of petroleum in the Pacific coast city of



Corinto. This prompted Exxon to announce that it would no longer use its own ships to bring petroleum into Nicaragua for safety reasons. Under these severe circumstances, shifting to a base of domestic energy resources has become a practical necessity. —LR

**"Revolution Provides Lessons for Urban Activists,"** by Michael McConnell, *The Neighborhood Works*, February 1984, \$2 from:

Center for Neighborhood Technology  
570 West Randolph Street  
Chicago, IL 60606

Discusses the institutions for local participatory democracy that are developing in Nicaragua. The Sandinista view of democracy clearly goes beyond merely voting in national elections every few years. —LR

*The Nicaraguan Reader: Documents of a Revolution under Fire*, edited by Peter Rosset and John Vandermeer, 1983, 359 pp., \$8.95.

*El Salvador: Central America in the New Cold War*, edited by M. E. Gettleman et al., 1981, 397 pp., \$7.95.

*Guatemala in Rebellion: Unfinished History*, edited by Jonathan Fried et al., 1983, 342 pp., \$7.95.

All from:  
Grove Press  
196 West Houston Street  
New York, NY 10014

Each of these readers covers all aspects of the conflict in each country. Each is organized in thematic sections with editors' introductions and a variety of readings from the political right (usually U.S. government documents) and left. These books are probably the best introductions for those wishing to gain a broad and balanced understanding of the problems and prospects of these three countries. —LR

*Dollars and Dictators: A Guide to Central America*, by Tom Barry, Beth Wood, and Deb Preusch, second edition, 1983, 282 pp., \$6.95 from:

Grove Press  
196 West Houston Street  
New York, NY 10014

Have you suspected that corporate interests might be involved in the U.S. government's concern about Central America, but not had the data available to substantiate your suspicions? You'll find it all here in this book. The authors document U.S. government and corpo-

rate involvement in Central America with lots of statistics, lists, charts, and footnotes. Part One includes analyses of agricultural trade, international financing, military alliances, and the real beneficiaries of foreign aid. Part Two gives a political, economic, and historical profile of each of the seven Central American countries, along with a complete listing of the U.S. corporations operating in each country. —LR

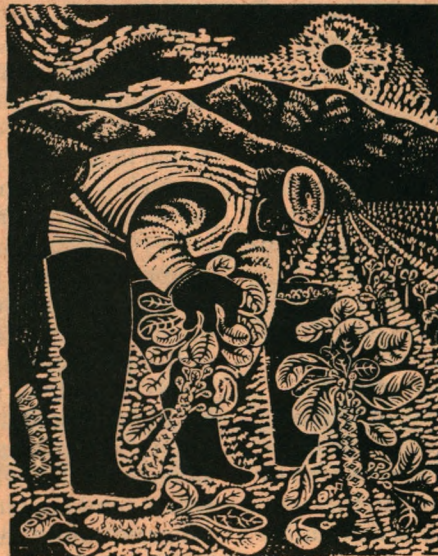
*Central America Bulletin*, monthly, \$15/ year from:

Central America Research Institute  
PO Box 4797  
Berkeley, CA 94704-4797

Formerly the *El Salvador Bulletin*, this 8-page monthly features three or four well-researched articles about the latest political developments in Central America in each issue. —LR

**Committee in Solidarity with the People of El Salvador (CISPES)**  
19 West 21st Street, 2nd Floor  
New York, NY 10010

With more than 300 local organizations nation-wide, CISPES is the largest Central American solidarity organization in the U.S. Dealing with the problems of the region as well as El Salvador, CISPES' activities include letter-writing and petition campaigns, door-to-door canvassing, film and slide presentations, local and national demonstrations, and medical aid to El Salvador. CISPES publishes a monthly newspaper, *El Salvador Alert!* (\$10/year), covering both developments in Central America and anti-intervention activities in the U.S. —LR



CPF

**New El Salvador Today**  
**NEST Foundation**  
**PO Box 4762-A**  
**Berkeley, CA 94704**

We know what the rebels in El Salvador are fighting against, but do we know what they are fighting for? To get a glimpse of the new society they seek to create, we can look to those areas currently under control of the rebel forces, known as the "zones of control." NEST was founded to bring information about the zones of control to the American people.

Through NEST we learn about the local Popular Governments—newly developed institutions for community participation in decisions regarding the areas of Production and Distribution, Education, Health, Civil and Local Affairs, Public Works, and Security and Self-Defense. NEST not only provides information about life in the zones of control, but also raises funds for the Local Popular Governments, and promotes sister-city and sister-committee projects. (Berkeley has become a sister-city to the rebel town of San Antonio Los Ranchos.)

To learn more about life in the zones of control, read NEST's 32-page booklet, *A View of Life in the New El Salvador*, available for \$1.50 from Solidarity Publications, PO Box 40874, San Francisco, CA 94140. —LR

**Nicaragua Seed Project**  
**Tilth**  
**4649 Sunnyside North**  
**Seattle, WA 98103**

This project was born at the Chinook economics conference in May. We collected over \$700 at the conference to buy seeds for Nicaraguan farmers. The project was inspired by an article by James Donaldson in the spring issue of *Tilth*. Donaldson had just returned from Nicaragua with two messages to the American people from the farmers of the Sandinista Sustainable Agricultural Movement: "Please vote" and "please send us seeds." Nicaraguan farmers are engaged in a program to transform agricultural practices during 1984 and 1985 comparable to the massive literacy campaign conducted in the year after the revolution. Their goal is food self-sufficiency for virtually every Nicaraguan family by 1986. If you wish to help them reach their goal, you can send a tax-deductible contribution to Tilth, which will buy seeds in this country and send them with the next delegation that visits Nicaragua. —LR





# Itching to Learn about Ethnobotany?

by Cathy Baker

The Chehalis Indians once warmed Douglas fir cones over a fire as a prayer for sunshine. Sahaptin myth has it that Coyote, the preeminent character of Northwest coast Indian mythology, used the goldstar flower (*Crocium multicaule*) to replace the eyes Raven, the mythological trickster, poked out of the unsuspecting victim. The Nuxalk enjoyed the boiled cambium from the cottonwood tree as a "snack." To protect the young of the tribe, the Yakima made cradleboards for their babies using a "fender" made out of wood from the wild rose plant, since rose protects against ghosts. Quileute seal hunters would rub themselves with stinging nettles before going on seal hunts in order to stay awake, alert, and warm.

These examples give insight into the place of plants in culture and into the interrelations between plants and aboriginal peoples—the focus of a discipline generally called ethnobotany. Its history dates back to the exploration of the New World, when explorers catalogued the botanical inventory of the North American continent in an attempt to discover its economic potential. Their observations of native plants, and the uses indigenous people made of them, provided the "first" natural history of the continent, and the bases for the beginnings of ethnobotany.

Today, ethnobotany is far less utilitarian in its aims. Ethnobotanists now study native languages to see how people classify and conceptualize the plant (and animal) world; they look at references to plants in mythology, and study the effects human populations can have on the ecosystem; and, recently, ethnobotanists have been working with native groups in an effort to reintegrate indigenous plant foods into the diet.

At the Seventh Annual Ethnobiology Conference held in Seattle in April, anthropologists, archeologists, historians, botanists, linguists, nutritionists, and health-service workers gathered to address these topics and present their recent work. This year's three-day conference culminated in a banquet of native foods, beginning with an array of hors d'oeuvres that included cow parsnip stalks, salmonberry "sprouts," and fish eggs clustered on kelp. The main course featured baked salmon and was followed by a demonstration by a Nuxalk elder, "On Making Ooligan Grease." Ooligans, also known by the name *candlefish*, are small oily fish found in the waters of the North Pacific. When dried, this fish can be burned as a candle. (Last year, when the conference was

held in the plains region, conference-goers feasted on fresh bison.)

The many topics covered at the conference included medicinal plant use, folk classification and naming, paleoethnobiology, nutritional values of native foods, Pacific coast ethnobotany, and Chinese nutritional and herbal medicine. Two of the most interesting presentations dealt with Mayan agroforestry and traditional Nuxalk foods.

Fred Wiseman from M.I.T. discussed the history of and prospects for agroforestry in the Mayan lowlands. Recent findings suggest that the Mayan Indians of the late classic era (around 700 A.D.) relied much more on an agronomic system composed of a mix of tree, shrub, and herbaceous crops than scholars had previously thought. This agroforestry system provided a stable subsistence base, required minimal maintenance, and due to its great stability, could have supported the high population and prosperity that the Maya enjoyed during this period. As to why this magnificent culture collapsed, Wiseman suggested that the clue lay in changing subsistence patterns. After contact with the Spanish, the Maya replaced the forest-based system with intensive cultivation of maize. This single crop system depleted soil nutrients and offered less mobility, two factors that could have made the Maya more vulnerable to Spanish manipulation. What are the prospects for the renewal of agroforestry in the Mayan lowlands? Most of the present lowland forest is intact and suitable for an agroforestry system. In an area of the world that is so politically volatile, such a system might have many advantages, including a greater immunity from terrorist attacks.

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*Living things, particularly plants, are at the interface of human needs and thought with nature. What happens when this vital link is severed?*

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Much of the conference focused on the nutritional and cultural values of native foods for native groups today. Nutritionists have been discovering that traditional foods from the Southwest and Northwest have a much lower fat and salt content, and a higher calcium content when compared to commercial foods.

In 1983 Health and Welfare Canada, a government agency, funded a program to enhance the health status and use of traditional foods among the people of the Nuxalk Nation of Bella Coola, British Columbia. As part of this program, agency-sponsored botanists and ecologists conducted a study to determine the availability of traditional plant foods in the environment, while program coordinators held nutrition classes and food excursions, with the help of elders, to teach people when, where, and how to collect native foods. In addition, the program continues to sponsor traditional food feasts and has started a traditional plant food garden in the



community for educational purposes. The program has met with much success among both the young and old of the community. In fact, it has sparked a renaissance of sorts, where the young are learning "the old ways" and the elders feel a renewed sense of worth from sharing their knowledge. (For more information, write to Nuxalk Food and Nutrition Program, Health Clinic, PO Box 93, Bella Coola, BC, V0T 1C0, Canada.) Similar work has been initiated among the Tlingit and Haida of southeast Alaska. This program has gathered several indigenous foods to determine nutritional values, and has produced a videotape that demonstrates traditional food preparation techniques. (Helen Hooper, Indian Health Service, Mt. Edgecumbe, AK 99835.)

These last examples show how valuable ethnobotany can be in addressing contemporary concerns. Living things, particularly plants, are at the interface of human needs and thought with nature. What happens when this vital link is severed? Among the Nuxalk people, there is a widespread problem with obesity and poor health. The lack of vital ties to the original resource

base, to the flora and fauna, represents a tremendous vacuum in their culture, and contributes to the atrophy of the culture's resilience and integrity.

For the rest of us, the Anglos of North America, this issue prompts us to define our relationship to this land. Are we denizens, inhabitants? Will we continue to rape the land? To ship produce 3000 miles from its source, to a concrete jungle that has little or no tie to its resource base? The programs mentioned above have value not only for native groups, but for the current inhabitants of a region as well. Learning about different cultures can give us access to new ways of thinking about the world. Tomorrow morning when you stumble to the kitchen for a caffeine fix to get you through the day, why not consider instead a trip to the backyard to rub down with some stinging nettles? □ □

For more information about next year's conference, write to the Society of Ethnobiology, PO Box 1145, Flagstaff, AZ 86002. Subscriptions to the *Journal of Ethnobiology* (quarterly, \$15/year) are also available from the above address.

## ACCESS: Nature

**Mushroom: The Journal of Wild Mushrooming**, quarterly, \$12/year from:  
Box 3156  
University Station  
Moscow, ID 83843

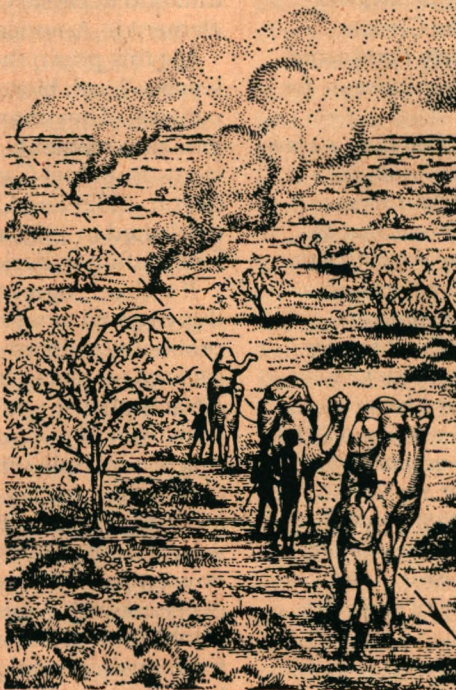
Mushroom lovers alert! This is a journal to fulfill your wildest fungi fantasies. Volume 1, Number 1 rolled off the presses last fall with articles on spores, *Amanita virosa*, and the 19th century mycologist Charles H. Peck. The first issue also evaluates nine well-known mushroom field guides. News from NAMA (North American Mycological Association), informative advertising, and recipes round out this new periodical. —Mimi Maduro

**Finding Your Way on Land or Sea: Reading Nature's Maps**, by Harold Gatty, 1983, 271 pp., \$8.95 from:  
The Stephen Greene Press  
Fessenden Road  
Brattleboro, VT 05301

Harold Gatty claims that aborigines and native guides have no monopoly on competent pathfinding. Furthermore, you need no compass or maps anywhere on earth to find your way—only well-trained senses and an understanding of what your senses reveal.

Gatty, an Australian navigator, honed his powers of observation at sea. He soon realized that finding his way in the wilds required only observation and deduction. In this book—originally published as

*Nature is Your Guide* in 1958—he tells you what to look for. You can tell direction from lichens, wind-sculpted trees, or anthills. At sea, you can release birds to point the way to land. Gatty explains why we walk in circles (we're unbalanced). This book is packed with useful information and interesting facts. If you're planning to visit the wilderness,



Camel caravan in Australia keeping smoke from three fires in line (FROM: *Finding Your Way on Land or Sea*)

read this book first as insurance against loss of map and compass, and use the pointers in this guide to increase your awareness of the nuances in nature.  
—TK

**San Francisco: Wild in the City** (poster), by Nancy Morita, 1983, 23 by 35, \$4.50 plus \$1.50 postage from:  
Wild in the City  
6 Cypress Road  
San Anselmo, CA 94960

San Francisco used to be a pretty wild place—before it became San Francisco. Today, the city is so densely covered with pavement and buildings that it's hard to imagine Indians and grizzly bears roaming the peninsula. This hand-lettered and -drawn, black-and-white poster shows two views of the city: native (before 1750) and today (1980s). (Nancy Morita expects to have a full-color version available later this year.) The native map shows Ohlone village sites (one near today's Candlestick Park) and such natural features as beach and dune (Golden Gate Park overlies former beach/dune terrain), chaparral, and salt-water marsh. For each natural area, the poster lists the native flora and fauna and the soil type, and notes which species are now regionally rare, endangered, or extinct—such as freshwater jellyfish, tule elk, and moon snail. This is the kind of information that makes me want to travel back in time, about 250 years, if only for a glimpse at San Francisco's wildest days. —TK





# Weaving Green Threads: Holistic Politics in the U.S.

by Fritjof Capra and Charlene Spretnak

When I returned to the U.S. from West Germany in July 1979, after living with a family in Wolfsburg for a year, I became frustrated with the lack of political dialogue over our most fundamental problems: first-strike nuclear weapons, nuclear wastes, massive oil imports, unaccountability in government, and especially citizen indifference to the whole mess. What opened my eyes was witnessing the German Green party publicly convey a picture of a society that knows the economy of nature is linked to the economy of humans, for better or worse.

I've remained frustrated until now. For the first time, a true portrayal of the now world-wide Green movement has been published in the U.S. *Green Politics* is important because it dispels the inaccurate information about the Greens that the U.S. media has conveyed. It gives a fascinating account of the party's formation in West Germany. It describes the Green movement's growth throughout Western Europe and into Canada, Japan, and Australia. Most importantly, it teaches and inspires us disillusioned, calloused activists how to minimize problems in uniting all the movements for a better society and world. The West German Greens have shown that politics need not be an unethical, shallow arena, but a way to build new hope on this continent. The technology for appropriate governance has been developing for decades. With a rich reserve of organizations, individuals, books, and newsletters that propose multiple solutions, the spirit inherent in the Green movement can catch fire here as well. We'd appreciate your thoughts on the excerpt below. —KN

Excerpted by permission of E. P. Dutton from *Green Politics: The Global Promise*, by Fritjof Capra and Charlene Spretnak, 1984, 244 pp., \$11.95 from: E. P. Dutton, 2 Park Avenue, New York, NY 10016.

Many of the same forces that created Green politics in Europe are on the rise in North America. In fact, the evolution of the Green Party in West Germany included a number of direct connections with political events in the United States. We were often told that three of the basic principles of Green politics—ecology, grassroots democracy, and nonviolence—were inspired in large part by citizens' movements in America, especially the civil rights and environmental movements. Many Greens have been influenced by the ecological wisdom of the Native Americans, and they cite the examples of Thoreau and Martin Luther King in their nonviolent resistance to military escalation. The core symbol of the Greens itself, the sunflower, is not native to Germany but to North America. The Greens certainly drew on other antecedents as well, but their impressive achievement was grown from partially American seeds. The German Greens have preceded their American counterparts in transforming holistic theory into political practice, and we can learn a great deal from their successes and errors.

Just as we believe a network to be an insufficient political form for Green ideas, we believe that moving into electoral politics prematurely would be an error. Considering the political system and traditions in this country, a bipartisan caucus is probably the shrewdest choice, although Green candidates could run at the local level as Independents. However, whether or not a caucus or party evolves later, the soundest starting point is a well-organized grassroots, national Green movement that develops a coherent view and comprehensive programs to present to lawmakers and the public. The structure should respect local and regional autonomy within a framework of shared values and should have only the minimal amount of national coordination necessary to present the movement as a potent element in American politics. . . .

[At this point, the authors suggest five organizational levels—local, bioregional, state, macroregional, and national. They then discuss the growth of the bioregional movement. The authors' concept of macroregions stems from Joel Garreau's *Nine Nations of North America* (Avon, 1982) and Carl Sauer's *Man in Nature* (originally published in 1939; recently reissued by Turtle Island Foundation in Berkeley, California).]

If a Green movement is to become a political reality in this country, it will have to overcome several initial problems, both internal and external. The first is the issue of who may become a member. Green politics attracts people who have been searching for a way to transform new-paradigm understandings into political practice, people who were previously somewhat apolitical but now realize that single-issue citizens' movements are inadequate by themselves, and political people who were dissatisfied with their old party or movement and now embrace Green ideals. Unfortunately, in nearly every country where a Green movement has been established, it has also attracted opportunistic persons from unsuccessful political groups on the right and the left who enter the new movement with hidden agendas and dishonest tactics. Identifying and banning them are difficult for two reasons: Individuals from any political background may sincerely change their thinking and



adopt Green politics, and a diversity of opinions within the framework of Green goals and values should be honored. However, persons who undermine the progress of Green political development by repeatedly trying to impose their own incongruous priorities should not be allowed to ruin the movement. One of the first orders of business during the movement's founding stage should be the creation of a statement of principles and goals, more detailed than the "four pillars," [grassroots democracy, ecology, nonviolence, social responsibility], to which all members would adhere. Although allegiance to such a declaration would not preclude the possibility of dishonesty, it would clarify the movement's expectations of its members.

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*The German Greens have preceded their American counterparts in transforming holistic theory into political practice, and we can learn from their successes and errors.*

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Some Green-oriented thinkers in this country are strict, almost absolute, decentralists. They maintain that the general lack of corruption in the federal government would also prevail at local levels if local government was made the focus of our system. Centralists, on the other hand, insist that impartial inspections and investigations, civil rights, control of acid rain, equitable allocation of resources, and countless other matters must be handled by a strong federal government. It is likely that a Green movement would opt for neither of those either-or positions but, rather, for a holistic both-and approach: appropriate governance. Green politics in this country would support a great deal of decentralizing in government, the economy, and energy production. At the same time, it might well support accountable, responsive federal power to safeguard the shared values of an ecological nonexploitative society. For instance, our federal government would determine that air pollutants must not exceed a certain level beyond which serious diseases result, but would leave the means of compliance up to each state to determine. . . . The tensions between the desire for autonomy and the reality of interdependence are but one conflict a Green movement would have to reconcile creatively. Mark Satin, editor of *New Options*, suggests that people are decentralists in their hearts but centralists in their heads. Like the German Greens, who call for a global federation to address issues of ecological balance and peace, he feels, "We'll always need a referee." . . .

Although an effective Green movement in the U.S. will not manifest itself automatically, its potential far outweighs the possible problems. There are literally thousands of groups and periodicals that are working along the lines of Green politics. The Networking Insti-

tute [PO Box 66, West Newton, MA 02165] lists 2,000 such organizations, and *New Options* lists 1,600 change-oriented periodicals. . . . In our opinion, these groups are working with means and goals that are consistent with Green politics; together their membership is over 2 million. If a Green movement is to develop in this country, many of the organizers will probably come from these and similar groups. Moreover, we hope that local Green groups will contact these organizations for resource material in the various areas we have delineated.

The first gathering might be a fund-raising picnic or fair or party at which Green values and goals could be discussed and community groups working in beyond-left-and-right modes could display material. Local groups might then decide to establish task forces for projects such as weatherizing the homes and buildings in a community as Fitchburg, Massachusetts, did, thereby taking their first step on the soft energy path. The Green organization might wish to conduct a "goals and futures project" to consider various scenarios for the future of their town, developing such policy-making tools for their local government as an agenda of long-range, intermediate, and short-term goals, along with analyses of issues and planning for legislative policies.

The local groups could send representatives to bioregional and eventually state and macroregional meetings as well, but it is important as the grassroots level develops to have some coordination at the national level. The business of a founding convention would include developing a statement of principles, deciding on the structure for the movement, suggesting guidelines for the process of a meeting, deciding on a name (some people feel "Green" is too narrowly associated with environmentalism in this country), and establishing a newsletter by which to convey ideas and inspiration among the local groups. Such decisions would require a great deal of preliminary work, of course.

Several people interested in building a Green movement have suggested that an assembly could be held in late 1984 or early 1985. We have prevailed upon the staff of *New Options*, the newsletter of Green politics in the U.S., to serve as a temporary clearinghouse for information about the development of a movement: Green Movement, c/o New Options, P.O. Box 19324, Washington, DC 20036 [202/822-0929]. They welcome reports from local Green groups and ideas about all aspects of the movement. In addition, they would like to hear from people interested in supporting and working on the founding convention. It is certainly possible that Green politics could grow as quickly and as firmly here as it has in other countries. □ □

© 1984 by Fritjof Capra and Charlene Spretnak

*Within a week of receiving Green Politics, we learned that the news tabloid Green Light News had been initiated to inform organizations and individuals about the Green movement in the U.S. In fact, RAIN readers should have received a sample copy of Green Light News (unless we hid your name when we traded our list). Send your reports and thoughts on emerging shades of Green politics to Green Light News, 1 Liberty Square, PO Box 12, Ellenville, NY 12428; 914/647-6903. New Options and RAIN will continue to monitor developments on the Green movement in the U.S.*



## ACCESS: Bicycling

***Adventure Cycling in Europe: A Practical Guide to Low-Cost Bicycle Touring in 27 Countries*, by John Rakowski, 1981, 368 pp., \$14.95 from:**

**Rodale Press  
33 East Minor Street  
Emmaus, PA 18049**

Someday I will make enough money so I can go to Europe for my long-dreamed-of bicycle tour to study vernacular architecture. Until then, I have this book to help plan my route. This is the best bicycle touring book I've seen. The information is clear, comprehensive, and entertaining. The first half of the book contains general information: what to bring, when to go, how far to go each day, what to expect, and so forth. The rest of the book is a country-by-country survey. For each country, Rakowski provides a map and describes specific tours (that he or a colleague has taken); gives basic information on maps (scale, where to get them), terrain, and traffic; tells you when the best cycling seasons are and what bike rental, repair, and transportation facilities are available; introduces you to the language, people, and customs of the country; discusses costs and particulars of accommodations and food; and lists sources of further information. He writes with authority and wit. I'd rather be bicycling, but this book makes all those rainy days bearable. —TK

***Blatant Propaganda*, by Susan Davis, 1984, 16 pp., \$1.25/issue from:**

**Sacred Cow Graphics  
1640 Ocean Avenue, #2N  
Brooklyn, NY 11230**

One might aptly call this attractively designed publication a "Bikeshevik Manifesto"—a mix of rousing political, bikeshevik philosophy, with organization, book, and magazine access sections; an appropriately thematic crossword puzzle; and handsome graphics, to boot.

"The bicycle is a vehicle for revolution. It can destroy the tyranny of the automobile as effectively as the printing press brought down the despots of flesh and blood. The revolution will be spontaneous, the sum of individual revolts. . . . It has already begun." This passage effectively captures the tone and ideology of the feature article, "Bikesheviks: Cycling for Freedom" by Bob Silverman, an article that originally appeared in a Canadian publication called *Open Road* (Box 6135, Station G, Vancouver, BC, Canada, V6R 4G5). Spouting terms such as "velorution," "auto-necessity," "cyclo-frustration," and "auto-cracy," Silverman lays down the premise that the private car is the supreme economic interest before which America and much of the developed world lies prostrate. He continues, "The generalization of cars in the city means uricide, destruction of

communities, pollution, noise, intimidation, isolation, and death. The generalization of bicycles in the city means community, ecology, quiet, efficiency, and love."

To overthrow this formidable "auto-cracy," we must view the bicycle as a means of by-passing the "official" transportation and a way for cyclists to escape the manipulations of the auto-cracy. In short, we need to realize that the bicycle can become a tool for economic and social change.

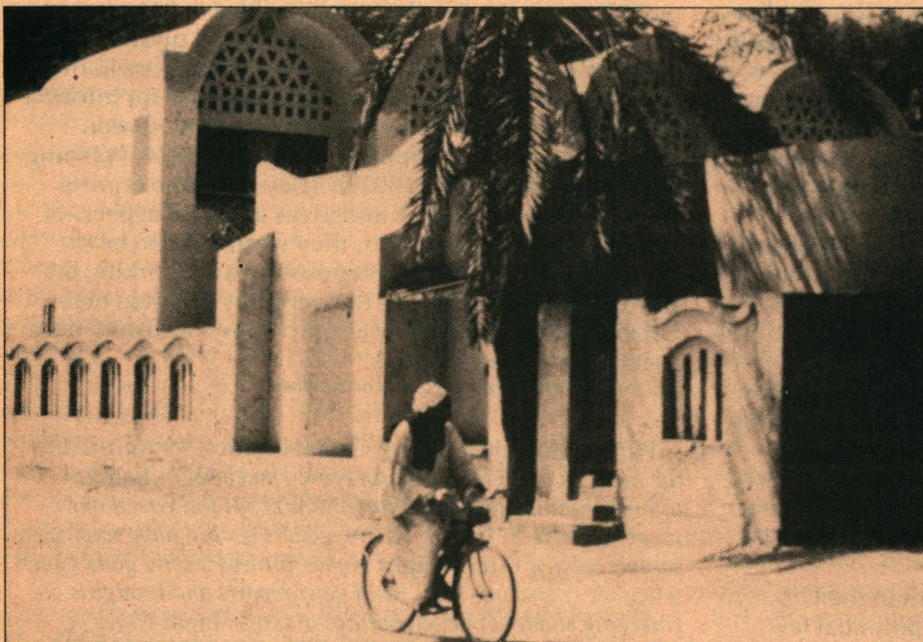
*Blatant Propaganda*, Number 1, is a jewel. Let's hope this first issue isn't the last. It is heartening to see this sort of political approach to the bicycle issue. In light of the attention bicycle rights and access have received in Portland politics this election year (and let's hope in other cities, too), we need a coherent, fact-filled, inspiring manifesto like this, one that can help us voice our concerns as bicyclists—whether through traditional political means or through anarchy. —CB

***The City Cyclist*, bimonthly, \$15/year from:**

**Transportation Alternatives  
2121 Broadway  
New York, NY 10023**

*The City Cyclist* is published by Transportation Alternatives (T.A.), one of New York's more radical cycling advocacy organizations, "dedicated to exploring alternative forms of transportation in New York City." The newsletter heralds recent accomplishments of the group and others like it in the city, and includes news on the latest proposed bike routes, threatened bike routes, bike maintenance courses, tours, and more. One of the hottest urban bicyclist concerns is protecting bike access on bridges. Last fall, due largely to T.A.'s and other bike groups' activism, bicycles were granted access to the Long Island Railroad commuter trains (albeit on a limited basis).

Write to T.A. to find out what's happening in this growing movement in New York City. With your membership you'll enjoy the newsletter, an 8% discount at many bike stores, free legal advice on bike-related matters, tours, and maintenance courses, not to mention a city that's better because it's better to bike in. —CB



JACQUES EVRARD

FROM: Down to Earth—see page 21



# Plugging Leaks in Local Economies

by Kris Nelson

*The recent success of socially responsible investment funds as profitable alternatives to conventional investing signals the likelihood of another development: locally responsible social investing. This approach to managing money raises important questions about the appropriate scale of economic activity. In these questions lie new opportunities: financing locally dependent food, energy, and related self-reliant systems and creating a more direct citizens' voice in deciding how money is handled. Such blessings, nonetheless, imply new responsibilities for all of us. As communities begin to check the flow of money out of their economies, people will need to become versed and active in local economic affairs.*

Our nation's cities are waging economic warfare among themselves. Each one attempts to lure large corporations that promise hundreds of new jobs by offering the best tax breaks, an unionized labor force, and the highest "quality of life" package. But freely opening the city gates to outside companies introduces new leaks in the local economy. Once a community has captured an elusive high-tech firm, for example, the corporation siphons its capital to a distant place—the corporate headquarters. Centralized chain stores also create leaks in the local economy. In 1976 William Batko reported in *Self-Reliance* (the now defunct newsletter of the Institute for Local Self-Reliance) that a McDonalds fast-food outlet exports 66% of its annual sales for advertising, rent, accounting and legal fees, insurance, food and paper supplies, and a service fee paid to the corporation.

Capital in most communities behaves like energy creeping through uninsulated walls: It leaks out of the local economy before it can be recycled among area businesses, residents, and financing institutions. The Community Reinvestment Act attempted to address part of this problem by requiring banks and their branches to offer loans within their communities, but it has not succeeded. Money-market funds and electronic banking fuel the flight of capital even further.

In fact, everything a community imports means money exported, and therefore lost to repeated use. But just as electric utilities have finally found that keeping more of what's already being produced is the cheapest, fastest way to "generate" energy, local governments and organizations are plugging leaks in local economies to create jobs and revitalize their communities.

Rerouting capital flow, in essence, comes down to retooling lending and investment practices. Based on the experience of Self-Help Association for a Regional Economy (SHARE) in Great Barrington, Massachusetts (see "Investing in the Community," RAIN IX:3), members of the Association for Regional Agriculture Building the Local Economy (ARABLE) in Eugene, Oregon, are pooling their deposits to provide collateral on loans to

local farmers, food processors, distributors, and retailers. Using a credit fund in a host bank, ARABLE members can help review loans using investment criteria that benefit the entire local food system, from growers and market gardeners to retailers and food buying clubs. ARABLE found it could compound its lendable funds by investing a small sum in the Working Assets social investment fund (see "Choosing the Future: Social Investing," RAIN IX:5). Working Assets, in turn, is investing several times the sum of ARABLE's investment in ARABLE's credit fund, thereby adding to the pool of money for local food-related enterprises.

Ethical investment criteria could also extend to city and county public-pension funds. In California alone, more than seven local public-pension funds exceed \$100 million each in assets, yet many of these do not invest their assets locally. "In most states," observes David Morris in *The New City States* (see RAIN X:4, page 12), "local pension funds are linked directly into state pension funds and controlled at the state level." Since ethical investment is in many cases more profitable than conventional investment, now is the time to propose that managers of public pensions and cities' bank accounts explore investing in local mortgages and developing local self-reliance in food and energy production.

At the forefront of this opportunity is Tacoma Park, Maryland (population 1,231). The city council unanimously voted on December 8, 1983, that the "city cannot invest in or do business with any industry or institution knowingly or intentionally engaged in the production of nuclear weapons or their components." The city's announcements for bids on projects include the above statement (see access).

Local governments can help plug local economic leaks through government purchasing criteria. David Morris cites Detroit, Michigan, and Livermore, California, where contracts go to local suppliers first even if their





bids are up to 5% higher than outside bids. If city governments purchased recycled paper that cost up to 10% more than nonrecycled paper, new local paper reproducers would recoup the extra expense many times.

In the private sector, one of the most productive ways communities can plug economic leaks is to replace imports with local products. Perhaps the cheapest, quickest way to start is by matching local manufacturers with local retailers (see RAIN X:4, page 34). Using local economic profiles and computer databases, the Neighborhood Economic Development Corporation (NEDCO) of Eugene, Oregon, helped a bike trailer manufacturer find a local supplier of parts instead of patronizing a parts supplier in Taiwan, among many other matches. NEDCO realized a 1,830% to 5,392% return on funds spent to develop the matching program. Indeed, almost any city with a population over 80,000 should have such a program.

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Cities can also develop new versions of imported products or resources. A community that has various renewable resources available locally needs to draw on its innovation and ingenuity. If its residents are creative entrepreneurs, so much the better. Of course, a local educational system that encourages creativity enhances a community's ability to develop alternatives to imports. Once a city has provided for itself what it formerly imported, "the city's greatly enlarged and diversified internal economy . . . [can enter] a period of vigorous export generating [to neighboring cities] and of earning wide ranges and great volumes of replaceable imports," writes Jane Jacobs in her insightful article "Cities and the Wealth of Nations" (see access). "Rapid or slow," she claims, "this is the cycle that keeps their economies going."

What about inter-city trade? The point is to minimize unnecessary energy and resource expense; no community can subsist entirely without some reliance on materials or products that it cannot find locally. Most cities, however, have barely begun to discover their capacity to exist within their resource budgets, but as they do, inter-city trade—including foreign trade—will continue. If cities and regions can curtail demand for nonrenewable resources such as oil from foreign countries, then the need to protect interests abroad, through war or the threat of nuclear weapons, diminishes.

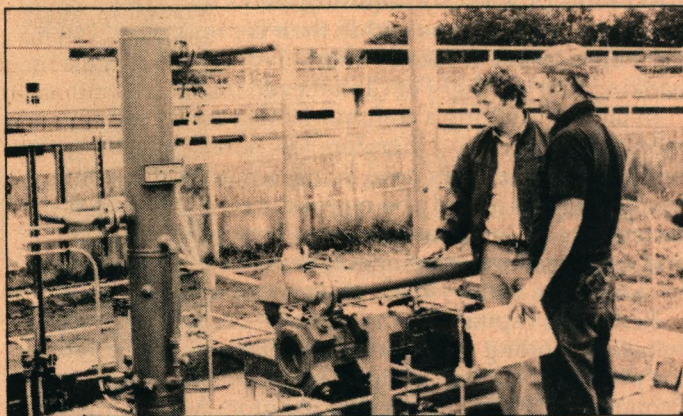
Cities, however, cannot rely on national import-export statistics that don't apply to unique city economies. Jacobs explains, "The consolidated information is not specific to [city economies] even with respect to their foreign trade, and it is no information at all with

respect to their trade with one another." So cities often incorrectly adjust the volume and variety of their products in response to national currency fluctuations that are based on the entire nation's import-export balance.

To correct problems emerging in the balance of trade, nations impose tariffs and export subsidies. By doing so, they attempt to bolster the value of the declining currency. But these quick fixes are inappropriate adjustments. "With falling exports," Jacobs states, "a city needs a declining currency working like a tariff and an export subsidy—but only as long as it is necessary." City economies cannot be self-regulating as long as they are subject to the vagaries of national economic policy and national currency fluctuations. Jacobs proposes individual city currencies as the best solution to this problem.

SHARE is instituting a new currency in Great Barrington, Massachusetts (see also "Avoiding the GRUCC: Creating a Community Currency," RAIN X:4). SHARE equates 100 cordwood notes with one cord of wood, which it defines by dryness and size. One advantage of this unit of exchange, points out Bob Swann, director of SHARE, is that "if the dollar declines, the value of a cordwood note stays the same. The point is to maintain an inflation-free currency." SHARE is helping local businesses to pay their employees with cordwood notes and to accept the notes in exchange for goods and services.

Organizing local economic groups to initiate a local currency is a long-term approach to strengthening a community's economy, but several short-term opportunities exist as well. One is the Cooperative Homeowners Insurance Program (CHIP). In California, Mill Valley has been investigating CHIP's potential (see access). The city government can expect to earn up to 20% of each dollar that homeowners pay on the insurance premium. It does so by endorsing the program, giving a local CHIP broker an easier market, and providing free home fire- and crime-prevention audits. In Mill Valley, firemen have conducted over 200 of the 40-minute checks during their on-call time, at no extra cost to the city. The result is that up to 20% of total homeowner insurance premiums go to the city's general fund rather than to a distant company. Furthermore, the rates to



Municipal enterprise: Bill Allinger (left) of Malarkey Roofing checks compressor that will pump methane from Portland's sewage treatment plant to the nearby roofing manufacturer and pump \$130,000 a year into the city's general funds.

KRIS NELSON



homeowners are slightly lower than in other plans. The owner of CHIP, however, is a large financing company.

Communities are also recovering money through curbside recycling. For one community in particular—Woodbury, New Jersey (population 13,000)—recycling is cost-effective. Since passing an ordinance mandating home separation of recyclables three years ago, the city has achieved 90% participation and saved \$280,000. Local reproducers buy the recyclables, and the city, in turn, purchases recycled materials. The city actually saves money by providing compost rather than paying for landfill space.

A growing number of renewable fuel projects show that a municipal corporation can generate funds for the city. Portland, Oregon, expects to earn \$130,000 each year from sales of its methane to a roofing manufacturer. A digester at the sewage-treatment plant produces the methane (see RAIN X:3, page 33). If Ottawa, Kansas, fulfills its goal to produce alcohol using the waste heat from municipally owned power plants, it will enjoy a revenue nearly equivalent to its operating budget.

The possibilities for making a community's economy more durable with local resources are as numerous as people are creative. To truly exploit the potential of local economic conservation, communities should undertake comprehensive economic conservation audits. First, a community's economic development office, together with representatives in food, energy, manufacturing, retail, finance, and recycling, would assess the quantity of food, energy, raw materials, and goods imported. (An audit done for Salem, Oregon [population 90,000] revealed that each year \$6.33 million left the local econo-

my for imported energy and \$9.46 million for imported food.) Second, the group would gather the same figures for exports. High-school or college science classes could assess available land and soil quality to determine the potential for urban food production. Third, the group would survey all local financial institutions to determine the flow of investment capital. Fourth, it would process the results via computer databases to form a comprehensive picture of where capital was leaking and where retailers and manufacturers could match products, to find costs of achieving energy and food independence, and to discover what the city could begin producing and marketing (methane, alcohol, electricity, recyclables, and so on) and what imports the city could easily replace with local products.

Once several communities in a region had these databases available, they could share selective results via computer telecommunications. The goal here would be to determine whether one community's materials or import needs could match another's export ability. More than likely, as Eugene's NEDCO has found, municipalities would discover that they could save transportation costs and time delays by trading with neighboring communities rather than with more distant ones.

The growing trend of communities meeting more of their needs within their borders coincides with another pattern. Individuals everywhere are also discovering inner healing and spiritual resources. As these two trends develop further and converge, communities may become inspirational, culturally rejuvenated centers such as we have rarely known before in history. □ □

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## ACCESS: Community Economics

*Directory of Socially Responsible Investments*, by George Pillsbury, 1983, 27 pp., \$5 from:  
Funding Exchange  
135 East 15th Street  
New York, NY 10003

Lists mutual funds, alternative investments, investment advisors and brokers, and organization resources. —KN

*Source Separation the Woodbury Way*, 1982, 72 pp., \$3 from:  
The Woodbury Recycling Fund  
33 Delaware Street  
Woodbury, NJ 08096

Documentation of Woodbury's ordinance mandating home separation of recyclables and its resulting cost savings. Woodbury representatives also appear in person to show "The Woodbury Way," a 10-minute slide presentation (1982); "Choose to Reuse in Woodbury," a slide-tape show explaining the results of the feasibility

study and proposal for mandatory recycling (1981); and "Recycling, the Woodbury Way," a half-hour video produced by WKBS-TV, 3201 South 26th Street, Philadelphia, PA 19148. —KN

*Catalyst: Investing in Social Change*, bimonthly, \$36/year for individuals and nonprofits (\$12/year for individuals making under \$13,000/year), \$108/year for corporations, from:

The Center for Economic  
Revitalization  
28 Main Street  
Montpelier, VT 05602

For the same subscription price, you now get *Catalyst* every other month when you subscribe to *Good Money: The Newsletter of Social Investing and Investing* (see RAIN IX:3, page 13). *Catalyst* covers businesses, organizations, and innovative projects; it includes brief reports on developments in the fast-growing social investment field. Look for *Good Money's 1984 Guide to the Social Investment Community* (\$10, available June 1). —KN

### Cooperative Homeowners Insurance Program (CHIP)

City of Mill Valley  
Administrative Assistant  
PO Box 1029  
Mill Valley, CA 94942  
415/388-4033

CHIP includes a city-endorsed home safety program, using home safety audits, to provide a return to the city's general fund rather than exporting all homeowner insurance premiums out of the local economy. —KN

"Cities and the Wealth of Nations," by Jane Jacobs, *The Atlantic Monthly*, March 1984, \$2 from:

The Atlantic Monthly Company  
8 Arlington Street  
Boston, MA 02116

A thorough discussion of the role city economies play in national economies and ways cities can create more durable



economies by replacing their imports with locally produced goods and services. The article was excerpted from Jacobs' book by the same title, available from Random House, 201 East 50th Street, New York, NY 10022. See also "The Economy of Regions" by Jacobs, the text of her address at the Third Annals E. F. Schumacher Lectures, October 1983 (\$3 from the E. F. Schumacher Society, Box 76A, RD 3, Great Barrington, MA 01230). —KN

**"Abstract of Proposal to Issue an Independent Currency in the Berkshire Region of New England," send a self-addressed, stamped envelope to:**

**The E. F. Schumacher Society  
Box 76A, RD 3  
Great Barrington, MA 01230**

The proposal, by the Self-Help Association for a Regional Economy (SHARE), is a design to employ a cord of wood as a backing for a local currency. Also available (for \$2) is "Selecting a Local Currency" by Shann Turnbull. —KN

**Joint Committee on Municipal Investment**

**7431 Baltimore Avenue  
Tacoma Park, MD 20912  
Attn: Jay Levy**

The committee is composed of elected officials and leaders of local peace groups

and is charged with defining Tacoma Park's policy against municipal investment in or business with companies that produce nuclear weapons or their components. The policy is a national model in locally responsible social investing. —KN

**Nuclear Free Investment Packet, \$3 from:**

**Nuclear Free America  
2521 Guilford Avenue  
Baltimore, MD 21218**

The packet is part of Nuclear Free America's national campaign to promote the adoption of social investment criteria for municipal funds. Includes list of 50 defense contractors to avoid (nuclear weapons producers), suggested criteria for local social-investment ordinances, and social investment information for individuals and institutions. Excellent resource. —KN

**Local Exchange Trading Systems (LETS)**

**Landsman Associates  
479 4th Street  
Courtenay, BC, V9N 1G9  
Canada  
604/338-0213**

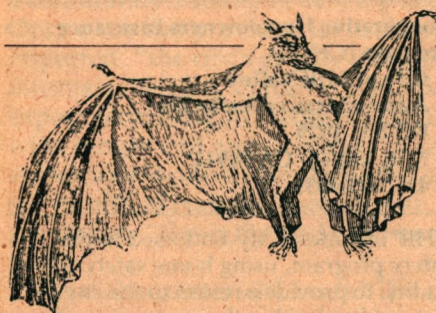
Can you imagine a local economic system that would allow individuals to issue and manage their own money supply and would keep money circulating within the community to stimulate employment and reduce the need for government subsi-

dies? Michael Linton, creator of LETS, claims that such a system can be developed in any community with little difficulty. LETS has been operating successfully on Vancouver Island in British Columbia for over a year. How does it work? It's simple. LETS is similar to barter; it's based on consensual transactions between two people where no money is exchanged. But LETS does not require reciprocal exchange—if only one person wants something that the other can give, trading is not impeded. A central computerized account exists for the entire system, where the person who gives something (either a good or a service) gets a credit of some agreed-upon amount, and the recipient gets a debit of the same amount. Debts are worked off through later transactions. The debtor effectively gets interest-free credit in the interim.

Though the system is simple, the ramifications are profound. LETS has several benefits, but it is most attractive in communities with high unemployment. In such communities, lack of federal currency to stimulate exchange paralyzes economic activity. LETS supplements the conventional money system to bring underemployed labor, equipment, land, and other resources into use as the community needs them.

Landsman Associates offers a 40-page booklet outlining everything you need to know to set up a LETS in your community for \$12, and also offers software for doing the accounting for \$100. —LR

## TOUCH & GO



**Rainforest's best friend:** "Tropical rain forests around the world depend heavily upon fruit- and nectar-eating bats for seed dispersal and pollination. More than 130 genera of tropical trees and shrubs are known to depend on bats for pollination. Many, if not most, economically important tropical fruits originally were or continue to be dependent upon bats. These include peaches, bananas, mangoes, guavas, breadfruit, avocados, dates, figs and many more. . . . We are only beginning to understand the great value of bats in tropical ecosystems." (From: *Smithsonian* magazine)

**Tithe of a tithe:** The Rolls Royce buyer is not the most charitable fellow in the world, according to *Sojourners*. Households with an annual income of \$50,000 to \$100,000 donate 1% to 2% of their income to churches and charity, but those with incomes of less than \$5,000 give an average of at least 5%. (From: *The Washington Spectator*)

**What? Me worry?** When a West Virginia legislative committee questioned Miles Dean, director of the state's Office of Economic and Community Development, about acid rain, he testified, "Our position is that it doesn't exist." (From: *The Progressive*)

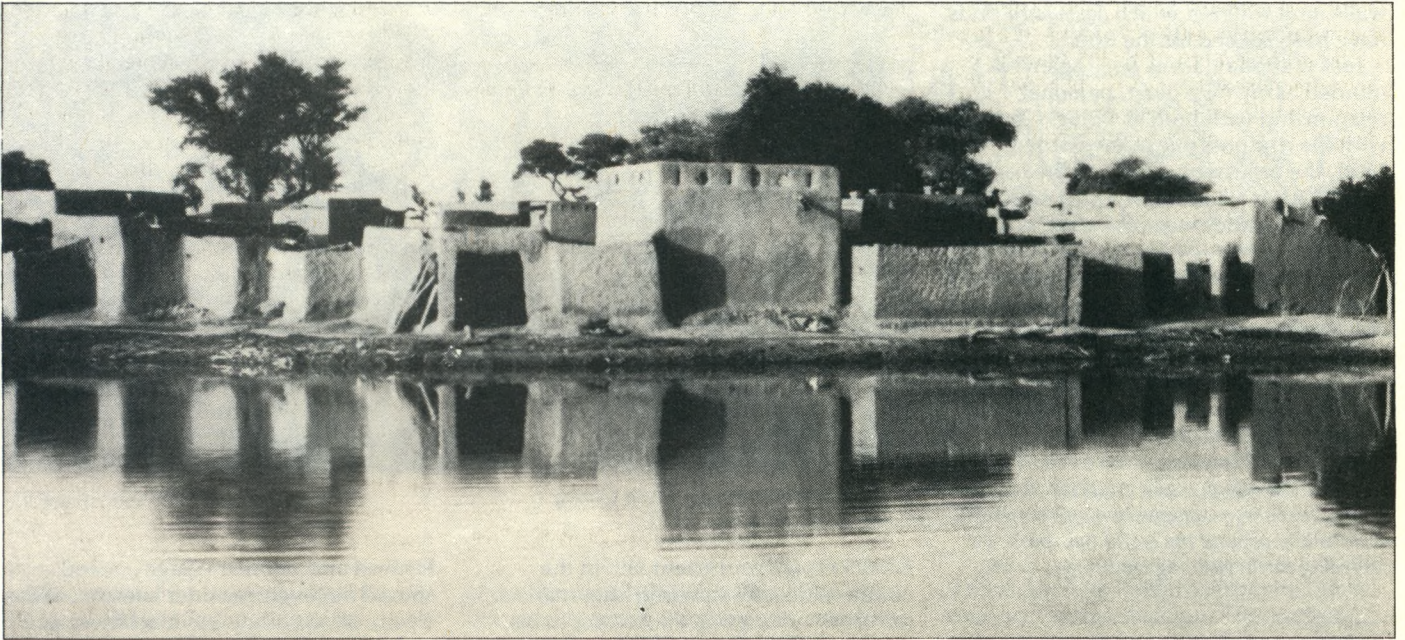
**Bone hungry?** Some young archeologists in California think that, through chemical analysis of fossil bones, they can figure out what early man ate. It's an appealing prospect. If they are right, they could end years of debate over the place of diet in evolution. Think what some similar

researchers might one day conclude about us. Finding PCBs in our fossil remains, will they conclude that *Homo americanus* subsisted largely on plastics? (From: *The New York Times*)

**Potato power:** Tired of supporting the battery industry? Support the state of Idaho instead. Run your clocks on potatoes. That's what North Carolina electronics technician Bill Borst is doing for fun and, he hopes, profit. *Omni* reports that Borst's invention is a clock that runs on two potatoes. The spuds are stuck on a pair of metal bolts wired to a digital display mechanism. One bolt is copper, the other zinc; the two different metals react with acid in the potato, causing a chemical reaction that generates electricity. He gets 0.85 volts from each potato, and the clock needs 1.5 volts to operate. Spud power is very economical, but, Borst notes, potatoes go dead in four weeks. (From: *The San Francisco Chronicle*)



## ACCESS: Mud Building



*Attached family dwellings in a Malian village*

### Mudpies and Mosques

Mud. What other material on earth is more basic? Yet mud can also be formed into shapes and textures of enthralling beauty. Some people even use mud to make themselves beautiful. I've often thought that the first *Zen and the Art of...* book should have been one on mud crafting. We seem to have lost much of our appreciation of mud here in the U.S., although a trip to Mesa Verde or the Pueblo Indian reservations would show us this was not always so. (The Zunis even have a Mudhead kachina.)

Mud is more respected in other parts of the world. In northern Ghana, a village's water supply often depends on carefully crafted mud. Villagers construct earth dams during the dry season, which then fill with water when the rains come. These dams often support a nutritionally important fish population, provide water for dry-season gardening, and hopefully hold enough water for cattle and people until the spring rains come. The alternative: for the women, walking four to eight miles each way for a bucket of water.

Keeping this in mind, the mud walls of a full earth dam are an object of beauty.

Besides holding water, mud can also be formed to hold fire. The three-sided mud stoves of Ghana even suggest the shape of an earth dam. Cooks make their own custom-built stoves, for they alone know which pots they will use and any added features they will need.

In most parts of West Africa, mud is also the primary construction material for buildings. Mosques and family dwellings in Mali show the people's reverence for



*Brimming dam after first rains in northern Ghana*



*Dry dugout dam in northern Ghana*



mud. Ordinary buildings are extraordinary works of art. In wetter climates, mud forms the ground on which the people apply more rain- and wear-resistant materials: manure plaster for walls, and water in which *dawadawa* pods have been soaked for the floors.

Just yesterday, I was once again reminded of my own deep, personal relationship with mud as I mucked about with the compost pile in my garden. Mud, the base of my garden. The basis of all life? After all, what is "primordial ooze" but a fancy word for mud? —JS

*I've always liked the idea of using earth for building. What other material is as widely available, cheap, and amenable to creative uses? About one-third of the people in the world use earth for structures ranging from subsistence housing (see Mud, Mud: The Potential of Earth-Based Material for Third World Housing, RAIN VIII:4) to monumental mosques and minarets. Recent interest in energy conservation and vernacular architecture around the world has sparked a revival of earth-building traditions. —TK*

***Racing Alone: Houses Made with Earth and Fire*, by Nader Khalili, 1983, 256 pp., \$14.95 from:**

**Harper & Row  
10 East 53rd Street  
New York, NY 10022**

Nader Khalili, a native Iranian who has studied and practiced architecture in the U.S. and Iran, tells the story of his search for a method of constructing cheap, durable houses using local materials and local skills in *Racing Alone*. Although he was at first inspired by the beauty and simplicity of earth and earth forms, Khalili found new inspiration when, after an earthquake hit a village in Iran, he saw the buildings that survived the quake best were the indigenous domed structures built of unbaked earth, and the ones that collapsed most dangerously were the flat, tin-roofed concrete structures, products of Western technology.

Khalili found grudging acceptance, at best, for his backward-seeming ideas of building with earth in Iran. Only half the task was finding a way to build quake-proof, rainproof, sturdy, beautiful houses of earth. Much of Khalili's work took place while the revolution was fermenting in Iran, and he was frustrated again and again by Iran's forward-looking yet tradition-bound culture: "Here [in Iran] lies a wealth of clay culture that I need to touch, and over there [in the U.S.] lies a wealth of ease to work on dreams. Here, if your dream lies anything beyond the writing of poetry you are heading for a state of desperation."

A flash of insight finally came when



*Courtyard kitchen in southern Ghana*

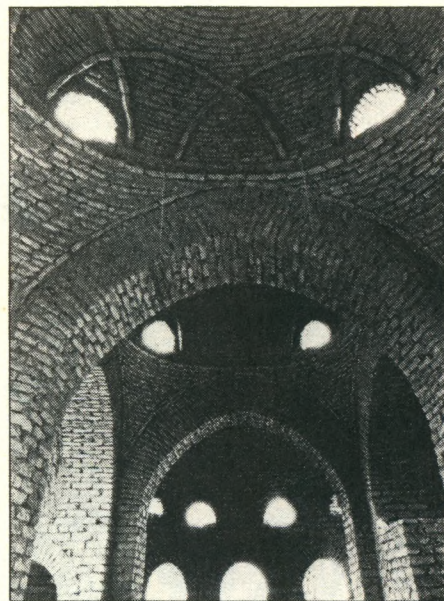
Khalili espied an ancient kiln in the countryside, still standing after many a rainstorm. Here was the answer to his dreams: "The pictures of all the ceramic kilns of Korea, China, Japan and now Iran come to mind. All these poor people living in these lands with the most sophisticated kiln rooms, stronger than any building they build, without living in them. They live right next to the kiln, in flimsy, dirty, and unstable houses that would fall apart with the first serious rain, and a harsh wind, a small flood, or a little tremor; while their strong, long-lived kiln rooms look at them in mocking silence. They keep wasting all that fuel in mindlessly firing and refiring, baking and rebaking their kilns, all along watching their living quarters collapse while their kilns survive." Ironically, what these people bake in their kilns are the bricks they use to build their houses (as well as the pottery that they use for eating, cooking, and storage).

Khalili convinced a master kiln builder to fire ceramic houses for him, and he discovered a way to glaze the interior walls. "I have always imagined my glazed houses to have the color and textures, the soft and curved edges around the openings and projections, that seashells have. I can imagine a human walking, sitting, and living in the glazed space like one of those sea animals crawling into its shell."

He took great care to use indigenous materials and local skills. The firing and glazing process itself—called *Geltaftan*—uses only earth, air, fire, and water. To apply the glazing, Khalili didn't want to use imported pumps, nozzles, and generators. "Geltaftan must be a system that could be used anywhere, even in the

farthest and poorest village . . . and should not even consider such luxuries as electricity, let alone use machinery and technicians." The solution was to use insecticide sprayers, which work with a bicycle pump—all the farmers have one, and "they use it almost as often as they use their shovels." (By the way, he does not discuss the health effects of using insecticide-permeated containers to spray glazing inside the houses.)

*Racing Alone* is about holding onto dreams and discovering wonder in the world: "Now the time has come to create a ceramic glaze, a stoneware, a china, a stoneware, not in the scale of our hands, but in the scale of our lives." —TK



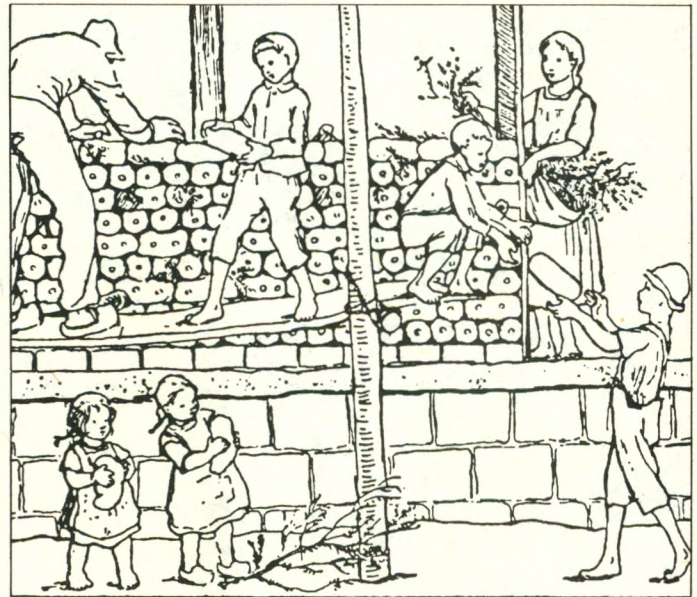
*Egyptian villa, built 1980 (FROM: Down to Earth)*

CHRISTINE BASTIN





View down a side street in Djenné, Mali



A 19th century German depiction of the use of unbaked earth in traditional rural buildings (FROM: *Down to Earth*)

COURTESY L. CHRISTIANS

**Architecture and Community: Building in the Islamic World Today**, edited by Renata Holod and Dari Rastorfer, 1983, 256 pp., \$20 from:

Aperture  
Elm Street  
Millerton, NY 12546

The 15 projects in this book are winners of the first Aga Khan Award for Architecture, which was set up to encourage high architectural standards and a new synthesis between indigenous forms and modernity in Muslim countries. The awards recognize not celebrated monuments, but "the part of the common man creating for himself and his neighbors a setting for life and for health, preserving and utilizing what nature has created, developing ways to maintain his identity rather than accepting the elephantine massiveness of today's world."

The book itself is beautifully designed and contains numerous photographs of each project. The projects convey a sense of human scale, of adaptation to local needs, and of the beauty of traditional idioms in architecture. Ten essays in the first part of the book discuss various aspects of Islamic architecture, philosophy, and life. The book "calls for the reawakening of concern for the efficacious, the appropriate, and the beautiful in the architecture of the Islamic world today," writes Renata Holod in her introduction.

Categories for the Aga Khan Award were: social premises for future architectural development, search for consistency within historical context, search for preservation of traditional heritage, restoration, search for contemporary use

of traditional language, search for innovation, and search for appropriate building systems. Beautiful color and black-and-white photos illustrate each project, accompanied by descriptive text that briefly summarizes the project's context and intent.

The award committee presented a special award to Hassan Fathy, the Egyptian architect who, since 1947, has been designing and building the city of New Gouna. He has long been a champion of vernacular architecture and mud-brick construction (see *Architecture for the Poor*, RAIN I:9). For New Gouna, he "identified the best preindustrial building systems of Egypt and strove to understand their climatic efficiency, to appreciate their aesthetic, and to extend their performance limits." Elements of these buildings included ventilated two-story halls, screens, courtyards, vaults built without scaffolding, and domes on squinches built over square rooms and laid in a continuing spiral.

In *Architecture and Community*, Fathy writes about musicality, spirituality, and civility in building and about the human harmony with nature, materials, and tradition. He writes, "In the ideal architecture, modelled by craftsmen, by artisans, man would be putting something of himself into the material and radiating something, giving it something that, along with the essence of the material, would be reradiated to man, and would be doing him good. The principle of accretion allows for the constant interaction of man and material and environment. To my mind, architecture is like the shell of a snail, the soft part secreting calcium carbonates and by

natural forces making the form by movement and surface tension. The [carbonate] grains would arrange themselves in a village, returning on the soft, living part that created it and gave it form." —TK

**Down to Earth—Adobe Architecture: an old idea, a new future**, by Jean Dethier, 1983, 192 pp., \$12.95 from:

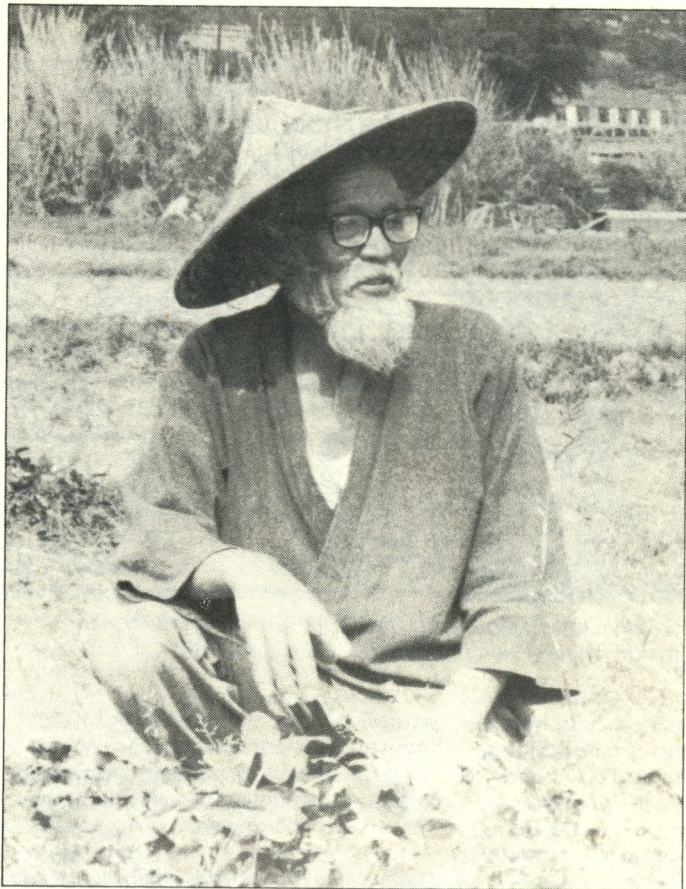
Facts on File  
460 Park Avenue South  
New York, NY 10016

*Down to Earth*, too, focuses on earth buildings in the arid regions of Africa and the Middle East—that's where most of them are—but also includes earth buildings in Norway, Colombia, Nepal, England, China, and the American Southwest. The book is based on the exhibition "Des Architectures de Terre," which opened at the Centre Georges Pompidou in Paris in 1981 and subsequently went on tour to museums worldwide. Hundreds of photos, in black-and-white and color, demonstrate that earth architecture is a living, centuries-old tradition amenable to a wide range of architectural forms.

The author, Jean Dethier, points out that although the skills involved in building with earth originated almost 10,000 years ago, earth architecture has immense potential today because with it we can build energy-efficient structures, suited to the local climate, that use local resources.

The photos aren't as visually stunning as the ones in *Spectacular Vernacular* (RAIN X:3), but the range of building traditions catalogued makes up for that. —TK





Masanobu Fukuoka (photo by Halgar Shorter)

## Japan's Dying Pines: Fukuoka's Last Straw

by Alfred Quarto

*News of Japan's economic power permeates the media. We take for granted Japanese expertise in computers and management. But we rarely hear about the consequences of Japan's productiveness. It's all too easy to assume that Japan has managed its ecology with zen and z-theory.*

*Al Quarto is a poet and environmentalist who lives in Seattle. He's currently traveling with and writing a biography of an Australian aborigine. Previously, he spent about ten months working for Greenpeace in Japan, where he met a simple farmer who cherishes the ways of nature and seeks the root causes of problems. —TK*

On the Japanese island of Shikoku, near Matsuyama Bay, lives an old man. He's called sensei, or teacher, by his students, who learned about the earth's nature and their own nature through his teachings. In most ways he appears to be an ordinary man, a simple farmer making his living from the land, but I soon learned that he was neither an ordinary farmer nor an ordinary man.

I first learned of this man, Masanobu Fukuoka, when a friend in Japan lent me a copy of the book *One-Straw Revolution* (reviewed in RAIN IV:10), which describes his methods of "natural" farming. The concepts presented in the book offer an alternative to the chemical treadmill that today permeates our agricultural endeavors world-wide.

His one-straw revolution is a bloodless one: no governments are overthrown, no violent battles fought in the streets. Yet if his ideas were ever fully implemented, there would indeed be a change on a vast scale. For Fukuoka believes that people should work the land as farmers, become intimate with their earthly roots through raising crops, and enrich the soil and their souls through natural farming. Indeed, within a country like Japan, where most farmers use chemical fertilizers and pesticides, Fukuoka's methods are revolutionary.

He has established a method of farming that most closely approaches a natural way. His approach takes into account the processes within nature that have evolved over the history of the earth; he has proven that



Masanobu Fukuoka and his students (photo by Halgar Shorter)



these natural processes still work. Fukuoka does not till his soil, but simply broadcasts the seed by hand over the unplowed ground. His use of straw as mulch and ground cover eliminates the need for fertilizers or compost to replenish the soil. The straw replenishes the land with soil nutrients. Furthermore, mixed in with his crop seeds are the seeds of clover or chinese milk vetch, which form a living ground cover and act as a green manure for soil enrichment and a form of weed control. Through these techniques, Fukuoka has produced high yields of healthy crops without having to resort to chemicals. His crops have fewer pest problems or diseases, and their quality in food value is much improved over chemically treated crops.

For Fukuoka's methods to work, farmers must devote years to practical learning. They must get to know their land well—its soil and climate and its peculiarities. The rewards of such persistence are great, however; not only for superior crops and richer soils, but also for the overall progress in development of self that naturally follows the implementation of these methods. The natural farming approach is a movement toward the self—sort of a zen of farming.

The first night I visited Fukuoka's farm, about two years ago, I stayed up on the hill overlooking the bay, where his citrus orchards grow. I slept in one of the mud huts built to house the few student workers who were helping him with the farm chores in exchange for his wisdom on farming and living. These workers lived simply, raising much of their own food and getting only enough money from Fukuoka to buy essentials for their stay on the farm, such as candles for their light at evening or certain spices for their meals. Their reward was guidance from Fukuoka. For most, this was enough.

Reflecting now on what it was that brought me to Fukuoka's farm, how I came to sit by him in his fields for hours, I knew that it was more than an interest in new farming techniques. His natural farming approach represents a hope that we can still learn to survive through a harmonious relationship with the land we live on.

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*Fukuoka's crops have fewer pest problems or diseases, and their quality in food value is much improved over chemically treated crops.*

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Like most Japanese, Fukuoka has a tremendous pride in Japan, but he feels sad that his work and life have been so little understood by his countrymen. One of his most disappointing personal battles, in fact, has been trying to receive recognition for his work from his own people. Many people outside Japan have read his book and know his philosophy, but few Japanese farmers, agricultural students, or scientists pay him much heed. Too often, they would come to visit him on his farm and

take note of his positive results, but in the end merely shrug and exclaim that his methods are not practical today.

This judgment hurt Fukuoka, for he saw his long labors being misconstrued. He believes that it is imperative for his people to replace their fast-paced, consumer lifestyle with one of a slower pace and one that sustains, rather than depletes, the land. Yet his 40 years of laboring upon the land had not swayed them, and the earth and life itself in Japan, as elsewhere in the world, are misused and wasted.

Fukuoka's methods do work: He proved that. But it takes a fastidious, committed person to make a go of it. Unfortunately, most farmers in Japan, as well as in other parts of the world, don't want to take the time necessary to understand their land; instead, their relationship with the land is one of business and profit, loss and gain, chemicals and machinery.

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*The old-growth pine trees are the pride of Japan, much loved by the people. But for almost a decade now, pine blight has been ravaging the extensive pine forests throughout Japan.*

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Perhaps Fukuoka's pride in his people was bruised by the realization that they would not change. At times during our talks, I sensed a quiet despair in Fukuoka. This mood was especially evident when Fukuoka would look out toward the hills surrounding his little farm. He'd point to the trees there—the old-growth pine, which are now dying. These trees are the pride of Japan, much loved by the people. But for almost a decade now, *matsu gare*, or pine blight, has been ravaging the extensive pine forests throughout Japan.

Scientists have been studying the pine blight for years now, but thus far have been unsuccessful in finding a cause or a cure. This problem has reached such proportions, in fact, that it is a national disaster for Japan. I can vividly recall that odd sight I witnessed while visiting one of the ancient temple gardens in Kyoto. In this particular garden, an old and once beautiful pine stood, but it was wrapped from base to treetop, including all its graceful branches, in white bandages. A bottle containing a clear liquid was strapped to its side, and a feeding line ran beneath the bark. The tree's caretaker told me this tree would probably not live. This incident, more than any other, brought to mind the seriousness of the problem and the hopelessness. Throughout the countryside, the *matsu gare* was clearly written upon the pine trees, which were dying by the thousands in the hills.

Fukuoka was moved by this sad situation to try to halt the blight's advance. For a few years he spent much of his time roaming the nearby hills, sampling the diseased pines, comparing these to healthier trees, and trying to



determine what had caused the devastation of these beloved trees. His work brought out his old scientific and research talents, but this time he didn't have the fancy titles, labs, or grants to back him up. Fukuoka performed this work on his own, quietly and methodically assessing the problem, analyzing the trees from the roots up. He found the time somewhere between his planting and farming. He even planted seedling pines on his land, near his citrus orchard. He watched these carefully over the years of his research. In the end, Fukuoka found something amiss; the problem seemed to lie in the roots—and yet somewhere beyond the roots, beyond the trees themselves, beyond the blight itself.

What Fukuoka discovered there among the dying pines of his island hillsides was that a symbiotic relationship between the pine trees' roots and an associated root fungus had been disturbed. He found that the healthy trees retained a noticeable covering of fungus on their root systems, but when these trees became diseased, this particular fungal growth was either absent or diminished. Fukuoka believed that this fungus protected the pine trees so that their roots could withstand the onslaughts of such diseases as the pine blight. Once this relationship had been disturbed or destroyed, the pines were more susceptible to attacks from disease. Fukuoka placed the blame for this current imbalance on modern technology and its attendant pollution. He believed that increasing air pollution had caused a small but significant increase in atmospheric temperatures, which in turn led to a change in the temperature of the soil. This raising of soil temperature had, in its turn, destroyed the once healthy balance between the pine trees' roots and the symbiotic fungus that protected these roots. Now, according to Fukuoka, the roots had been laid bare and exposed to those diseases that hitherto would not have affected them on such a wide scale. Fukuoka believed that certain diseases had always plagued these trees, but it was only when their natural defenses were weakened or destroyed that they became the victims of major outbreaks. The *matsu gare*, he sadly reflected, was the result of humankind's interference in nature. Japan was, in essence, paying for its technological progress with trees and beauty; but for how long could it continue to pay such a high price for "progress"?

Japan's government, which had sponsored many scientific studies to resolve the problem, was pressuring its scientists to reach some conclusions. The public, now greatly alarmed by the blight, was demanding some sort of government action; also, the public was concerned that so much government spending in studying the problem had produced few results and many conflicting theories.

Fukuoka shook his head at the mess the government and its scientists were in. The government "specialists" put the blame on the budworm, which was noticeably attacking the diseased trees. Massive spray programs were planned for large acreages of pine forests. Fukuoka merely saw this as another way of "expanding the darkness within the cave by chipping away at the cave's walls." He felt strongly that such remedies were not



remedies at all, but were panic-inspired actions that would, in effect, worsen the problem, if not totally disguise the real nature of it. This was where Fukuoka's frustrations lay the deepest—he knew that the budworm was not the foe, but that modern civilization's inner workings had been the real enemy of the trees.

The government scientists did not accept Fukuoka's assessment that the problem began in the roots, and that this in turn weakened the tree, thus making it more susceptible to other tree disease infestations. They were looking for more specific causes than pollution and easier adversaries to tackle than government, industry, and modern society in general. Spraying the budworm seemed easiest; such a target was appealing for a modern technological giant such as Japan.

As Fukuoka said, the real problem lay in the roots, but not in the roots of the trees, for those trees could have remained healthy, surviving the budworm attacks that they had already survived countless times before. The real problem lay in the roots of modern society, which so carelessly goes about its business of "progress," and leaves so much devastation behind.

Fukuoka, who loves life and nature, had seen something clear concerning humankind's misplaced values and directions. He had hoped through his work to try to effect a change. Yet who can say? Running directly overhead one of Fukuoka's rice fields is a highway overpass. We sat under that overpass at one point in our talks. The road overhead became a symbol, humankind trying to promote our own way—concrete and mortar directions; along this path nothing can grow, take root, and find nourishment in stone soil. But here is a man, whom I would call a sage, who has built another sort of life from the land, who has shown us one way that we can live upon the land and nourish it, and in turn, be nourished by it. *Sensei* means teacher. This man may teach us ways to enrich the soil and the soul, to replant the seeds of our own lost wisdom and nourish those seeds naturally. □ □



# ACCESS: Peace

**La Place de la Concorde Suisse, by John McPhee, 1984, 150 pp., \$12.95 from:**

**Farrar, Straus & Giroux  
19 Union Square  
New York, NY 10003**

"The Swiss have not fought a war for nearly five hundred years, and are determined to know how so as not to," writes John McPhee. He was curious about the particulars, so he walked and ate and slept with a reconnaissance unit in the Swiss army. He discovered that the army has a bicycle regiment—which was quite effective during World War II—and a navy. He found out that hikers in the Swiss uplands sometimes happen upon artillery shells left over from training exercises. McPhee writes, "The Swiss make the claim that they do things in exercises no other army would do. No one disputes the claim. The Swiss are the sort of people who like to shoot apples off one another's heads."

The Swiss keep an army because they saw large-scale destruction of cities around them during World War II, and "had no difficulty imagining such scenes transposed to Switzerland." Twenty years ago, the Swiss began designing shelters against the effects of nuclear weapons. According to McPhee, "Jonathan Schell, writing in a different and wider context, recently expressed the Swiss point of view exactly when he said, 'A society that systematically shuts its eyes to an urgent peril to its physical survival and fails to take any steps to save itself cannot be called psychologically well.'"

This is a fascinating account of the Swiss perspective on how to maintain peace, written by a wonderful wordsmith. (The text originally appeared as a two-part series in *The New Yorker*—October 31 and November 7, 1983, \$1.50 each from: The New Yorker, 25 West 43rd Street, New York, NY 10036.) —TK

**My Country is the Whole World: An Anthology of Women's Work on Peace and War, by the Cambridge Women's Press Collective, 1984, 306 pp., inquire for price from:**

**Pandora Books  
9 Park Street  
Boston, MA 02108**

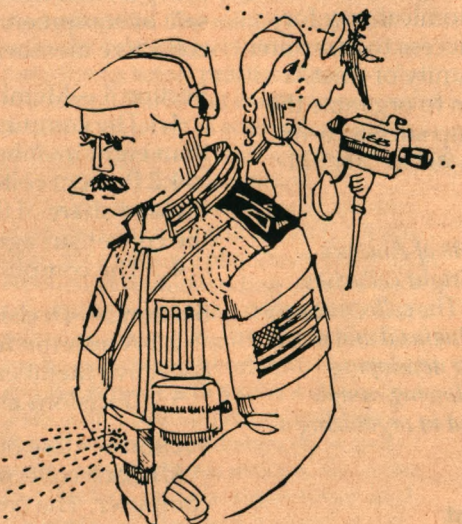
A treasury of writings on peace and war by women from many countries, from 600 B.C. to the present. Most selections are shorter than a page. These words

reveal a long history of the individual speaking out, with common sense and compassion, for peace and against war. The passages in this book also draw connections between the heritage of women as nurturers and their ability to question the morality of a society that would wage war. —TK

**First Earth Battalion  
Esalen Institute  
Big Sur, CA 93920**

A people/planet-serving army—a dream that shows signs of coming true. First Earth Battalion's founder, retired Lieutenant Colonel Jim Channon, describes it as "a banner under which forces of good in the world can unite and find strength with others who share a common goal. It declares its primary allegiance to the planet." Though still a mythical "force," it serves as a vision of the U.S. Army for the 1990s. (Secretary of the Army Wilbur Marsh and Channon talked about initiating such a model, but the two men have decided against the idea for now.)

The elements of "an army of light" are described in Channon's *Evolutionary Tactics* (\$12.50 ppd. from First Earth Battalion). The title pertains to the human technologies—such as yoga, martial arts and neurolinguistic programming—that can evolve "warrior monks." "These people would bring evolutionary tactics to defuse the nuclear time bomb, promote international relations, spread awareness of the need for ecological balance, and assist the wise expansion of technology," he says. The manual is used in "futures" courses in four military schools.



FROM: Evolutionary Tactics

Channon's world peacekeeping armies would include earth battalions to enter conflict zones armed with TV equipment (since he believes that public opinion decides the outcome of televised conflicts); an ecoforce to rescue citizens anywhere in case of war or natural disasters; a natural guard composed of children and unemployed persons to accelerate energy self-reliance and reforestation; a conscience corps of organized religions to carry out evolutionary projects; and devotional divisions that use the power of collective meditation and prayer to bring calmness and order out of chaos.

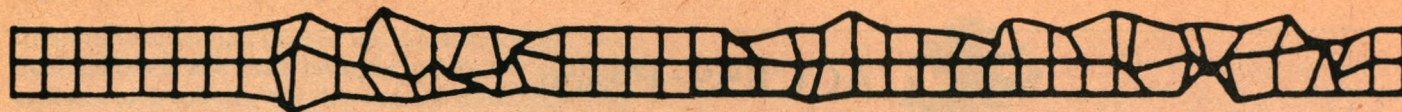
The First Earth Battalion will hold its first public gathering in Los Angeles the week prior to the 1984 Olympics. —KN

**"Soldiers for Peace," by Taylor Morris, 1980, revised 1982, from:**

**Taylor Morris  
c/o Soldiers for Peace  
46 Union Street  
Peterborough, NH 03458**

We could spend 1/220th of the 1983 military budget (or about \$1 billion) to create a lasting peace with Russia via Soldiers for Peace, claims Taylor Morris. "If we had 100,000 young Americans in Russia and if there were 100,000 young Russians in the United States there would, almost immediately, be a lessening of tension. The unthinkable but, apparently, doable nuclear war against Russia would become both unthinkable and undoable, and so would an attack on the U.S. by Russia. We would not destroy 100,000 of our young people, nor would the Russians. These volunteer-student-hostages would be soldiers for peace on a yearly exchange basis. The American volunteers, draftees, or both, would be signed up for . . . one year. Each government would pay for the costs of transportation, food, and housing. The host governments would take care of medical expenses for each group. . . . Each group would be part of a massive work-studies program, arranged and organized by the host country. . . . By the end of five years the numbers of Americans and Russians with a personal "stake" in the two countries would have become a sizable minority of 10 to 20 million people. . . . Former volunteer-hostages would want to return with families and friends to introduce them to their host families. Barriers would be breaking down." It's a peace corps, on a grand scale. Contact Morris for details of the plan. —TK





# Jumping onto the Micro Wave: Computer Co-ops

Computers don't come cheap, and you don't usually find computers in thrift shops. For individuals or organizations that get by on small amounts of money, a computer is not an option. Yet there are creative ways to make computers affordable. When Mimi Maduro visited Chinook Learning Community a few months ago (see RAIN X:4), she discovered that some Chinook members were living lightly and keeping in step with computer technology by sharing the costs of a computer. She asked Tim Clark to describe the Chinook Computer Co-op for RAIN. Back in Portland, Mimi contacted Portland attorney Beverly Stein for details on a hardware co-op for nonprofit organizations. Let's see more of this kind of resource sharing!—TK

The Chinook Computer Co-op, a community support co-op, was created by friends and members of the Chinook Learning Community who saw the potential of computer technology and wanted to learn to use computers. In May 1982, eight individuals contributed between \$250 and \$500 to buy an Apple computer, printer, and modem. They have since acquired a second computer and printer, a graphics plotter, and much software. Co-op members are now using this equipment for word processing, telecommunications, typesetting, financial planning, accounting, recordkeeping, and children's learning. Members have been able to learn different aspects of computer literacy and teach one another. Several members have acquired personal notebook-size computers, which integrate with the co-op's larger computers and printers. This gives them independent computer abilities.

Besides providing service to members, the co-op sells computer time to the larger community. Individual co-op members also provide computer services to the public, such as mailing-list maintenance, word processing, and accounting.

This cooperative approach is an economical way for individuals in the community to have access to computer technology. What is needed is a community of trust, a central accessible location, and a person to organize the project. For information on how to set up such a co-op, contact me at PO Box 321, Clinton, WA 98236; 206/321-1884. —Timothy Clark

The Portland local of Democratic Socialists of America (DSA) organized a hardware cooperative of eight collective members to purchase a Kaypro 4 computer. The collective uses the computer for organizing mailing lists, financial and membership records, and correspondence, and for developing informational materials and papers. The following sample contract provides a model for those interested in organizing a hardware cooperative. —Beverly Stein

## Memorandum of Agreement

This is an agreement among the following people

regarding the ownership and use of a [name of computer] computer and associated equipment: [list names of collective members]

### Section 1—Terms

1.1 The [name of computer] and associated equipment will be referred to as "the computer" in this agreement.

1.2 In this agreement the above named individuals will be referred to as "collective members" and the group as a whole as the "computer collective."

### Section 2—Powers, rights, and responsibilities of collective members

2.1 Each collective member shall contribute [amount] in the calendar year of [year] towards the purchase and maintenance of the computer.

2.2 Each collective member has an equal undivided share of the computer and equal access to use.

2.3 Collective members shall share equally in the cost of repair or replacement of the computer due to accidental damage to the computer. Exception: In the case of damage due to negligence of a collective member, the collective members may decide on an alternative method of recovering the damages.

### Section 3—Financial arrangement

3.1 [Name] is designated as Treasurer and will maintain the accounts of the computer collective.

3.2 Collective members shall contribute to the collective account according to the following schedule:

	Initial Contribution	Remainder/ Return	Payment Plan
[Names]	[Amounts]	[Amounts]	[Amounts]

3.3 The computer collective may decide to assess the members additional contributions and may solicit contributions from people who are not collective members.

3.4 Decisions about purchase of additional equipment, sale of equipment, and maintenance will be made by the collective members.

### Section 4—Membership

4.1 The computer collective shall consist of no more than eight members.

4.2 Present collective members may sell their undivided share of the computer to another person with the consensus agreement of the collective members.

4.3 The computer collective shall meet as needed.

### Section 5—Decision-making process

5.1 A quorum for decision-making purposes is six collective members.

5.2 Decisions are made by consensus.

### Section 6—Use of the computer

6.1 Each collective member has equal access to the computer. The computer may be reserved by a sign-up system established by the collective members. No member may reserve the computer for more than 48 hours in



a consecutive period unless no other collective member has need for the computer.

6.2 The computer shall be located at [place] and shall be returned to that location after being used unless other arrangements are made with the next user.

6.3 Only collective members may use the computer, with the following exceptions:

(a) Entry of data for organizational list maintenance for [names of organizations] and any other organization designated by the computer collective.

(b) People entering data for special projects under the supervision of a collective member.

#### Section 7—Amendments

7.1 This agreement may be changed at any meeting of the computer collective.

With mutual respect and trust we enter into this agreement:

[signatures of collective members and date of agreement] □ □

## ACCESS: Futures

***At the Crossroads, by the Communications Era Task Force, 1984, 32 pp., \$2.50 per single copy, \$1.50 each for 2-20 copies, from:***

**Communications Era Task Force  
PO Box 3623  
Spokane, WA 99220**

This is a document with a mission. By providing a concise overview of the dangers and opportunities confronting our society, along with some of the social patterns emerging in response to these realities, Robert Theobald and his cohorts in the Communications Era Task Force (CETF) hope to push discussion of fundamental social change out of the margins and into the mainstream of public debate. After reviewing some of the primary forces that will shape our future (such as computers and telecommunications, physical and ecological limits to growth, the threat of nuclear weapons, changing sex roles, and so on), the authors discuss ways in which people are coming to take more control over such areas as health care, crime prevention, workplace conditions, and investment decisions. They give special attention to new models of lifelong learning, new patterns of work, and new structures of decision-making that are both locally based and globally oriented.

Although many of the themes may be familiar to veteran social-change activists, what is special about this document is that the ideas are presented in a manner accessible to a wide variety of people. CETF has adopted a unique strategy for circulating the document: Everyone who reads it and agrees with its basic message is encouraged to send in his or her signature and order copies to give to parents, neighbors, coworkers, legislators, and friends. Since we last reported on it (RAIN X:2, NW Bioregion Report), the document has reached a large number of people in this way. A sampling of the signers of an early draft of the document is included in the margins of the booklet. The diversity of its supporters is evident:

the list includes a bishop, a taxi driver, a Chicana feminist, a corporate president, a socialist, a prison guard, an Air Force officer, a solar activist, and two members of Congress. If *At the Crossroads* continues to garner support among such a wide range of people, it may succeed in helping to redefine the basic terms of public debate about our society's future. —LR

***A Hundred Billion Stars, by Mario Rigutti, 1984, 285 pp., \$25 from:***  
**The MIT Press  
28 Carleton Street  
Cambridge, MA 02142**

Originally published in Italy in 1978, *A Hundred Billion Stars* is unusually "grounded." It won the European science-writing award, GLAXO "CEE." One reason it did, perhaps, is that Rigutti, Director of the Naples Astronomical Observatory, does not overemphasize the awesomeness of astronomy. He also does not gloss over the socio-political implications of space research: "Actually, science has not been left to the scientists for a long time now because it is the politicians and the military who have been financing their research and setting their priorities. The military does not make the best partners or advisors—or, considering actual practice, bosses—for scientists. I think that every citizen ought to take an interest in scientific research, so that in the future decisions may be influenced by 'public opinion.'"

The book addresses the way astronomers discover data and arrive at conclusions about cosmic phenomena as well as the current understanding of space and celestial bodies. Using the analogy of the galaxy as a town, Rigutti first introduces you to earth's neighborhood: the planets and the sun of earth's solar system. In plain, easy-to-understand language, Rigutti treats stellar distances, magnitudes, temperatures, masses, life cycles, and clusters; pulsars, supernovae, and planetary nebulae; and features of our galaxy.

We would all do well to develop respect

and appreciation for our *place* in earth's neighborhood and the stellar community. —KN

***The Evolutionary Journey: A Personal Guide to a Positive Future, by Barbara Marx Hubbard, 1982, 177 pp., \$7.95 from:***

**Institute for Conscious Evolution  
2418 Clement Street  
San Francisco, CA 94121**

The late Buckminster Fuller called Barbara Marx Hubbard "the best informed human" on the concept of futurism. I can see why, after saying "ah-ha" time after time as I read *The Evolutionary Journey*. She perceives the nuclear threat and environmental, social, and economic crises as "evolutionary drivers." Evolution's 15-billion-year tradition, she has discovered, is to make sudden changes via such triggers.

The quantum leap Hubbard sees taking form out of our crises holds the opportunity, if not the necessity, for us to become purposeful participants in personal and social evolution. "Now our generation," she believes, "is approaching the Tree of Life—the knowledge of how the invisible processes of creation do in fact work—the brain, the atom, the genes, the cells, the stars. We are ascending from self-consciousness to cosmic consciousness, from creature to co-creator, from Earth-only to universal. We are about to become like the gods, partners with the evolutionary process—or perish."

Hubbard wrote an exciting synopsis of her book in the April 1983 issue of *The Futurist*, entitled "The Future of Futurism: Creating a New Synthesis." She is, by the way, actively pursuing the Democratic nomination for vice-president. With over 90 campaign centers—called Positive Future Centers—she's attempting to bring her synergistic skills and knowledge into public service. For more information, contact The Campaign for a Positive Future, PO Box 4011, Irvine, CA 92716; 714/752-1204. —KN



## Voices of Reinhabitation: The Ozarks

*Knowledge and awareness bring responsibility. Few bioregional organizations know and practice this principle as the Ozark Area Community Congress (OACC) does. Since 1976, OACC members have educated themselves about their place and its culture and developed the OACC Green Platform from their shared knowledge. The platform guides the congress and its 10 committees in letter-writing campaigns and other political efforts. The bioregional movement would do well to learn from this pioneering coalition. —KN*

**by Ruth A. Downen**

I would like to tell you about a mystical land; a land of hills and valleys covering 55,000 square miles, its outskirts bounded by five major rivers. It is forested and riddled with waterways, abundant with game, and peopled by a unique creature, a being of quick wit but ease of execution. A folk who, for the most part, are gently fierce or fiercely gentle. It has been called the "Land of the Fifth Season" and you are its inhabitants.

Between 1.2 and 1.5 billion years ago, volcanic activity occurred in the Ozarks. Later, below the earth's surface, the hardened lava flows were invaded by a large mass of molten magma, which cooled and solidified underground. A third invasion followed, forcing molten basalt into hardened granite. This entire area was uplifted, faulted, and eroded, creating a series of low hills.

Around 525 million years ago these hills became islands protruding from an inland sea. Algal reefs grew, becoming limestone. Sand settled, becoming sandstone. The seas came and went, depositing their sediments until the hills were buried under level layers of rock. Subterranean pressures then uplifted the area several times, the major uplift occurring about 380 million years ago, creating the Ozark dome. For millions of years wind and water have been working a masterpiece.

We live on a land that has been literally carved from stone. Where huge granite boulders stand precariously like a backbone of rock! Where rivers boil through shut-ins or are swallowed by the earth! This area is home to such diverse flora as river birches, beech trees, lichens, water tupelo, and buttonbush. Deep in our caves rare blind cavefish and blind salamanders coexist. There are more than 3500 species of plants in the Ozarks and better than 160 species of fish.

We have one of the largest concentrations of springs in the United States. The nine largest springs produce an average of more than 64 million gallons of water in every 24-hour period. I've heard it said that anyone who drinks of an Ozark spring will always return to these hills.

What is the wooing of the hills? What force lured pioneers through fertile lowlands to till rocky slopes and battle the encroaching forest?

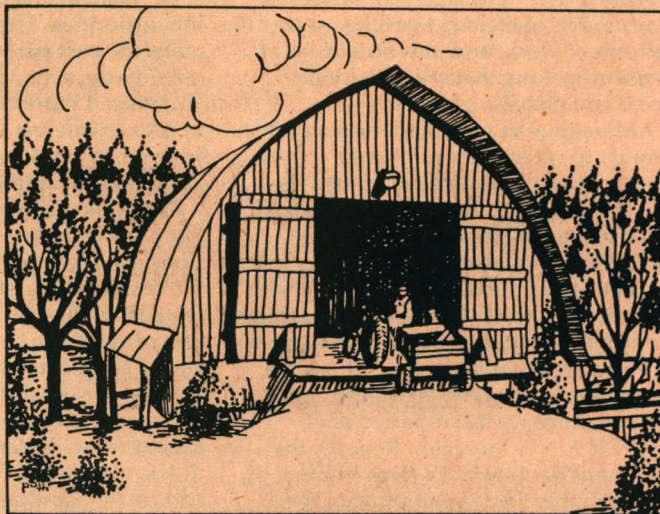
John Hall wrote, "The mystery of the hills reaches back to a time before there were places, back to the beginning of all things, and forward beyond the parade of man to a time only the wind and the rivers will remember."

I propose that the lure of the hills is their timelessness and that the people who have come to love these hills are themselves a timeless breed. They are people who persist with great determination in the present and yet reach with ease through the eternal folds of time.

In the early 1800s the first settlers (most of whom came from the Kentucky and Tennessee Appalachians) found a beautiful, almost uninhabited land. French and American explorers, trappers, and traders wrote of the Ozarks as a "wood lush with wild fruit . . . trees with edible nuts . . . and a wealth of beautiful as well as useful plant life."

The social life and developing culture of the early Ozarkers centered around school, church and music. Their doctors were "granny women" whose art was rooted in the practices of the "wise women" of old England interlaced with some herbal cures used by the Indians.

The term *hillbillies* came, apparently, from the Appalachian term *hillwillies*, an affectionate expression mountain women used for their men. Townsend Godsey wrote of Ozarkers: "Their speech was often lyrical and they had a great store of picturesque sayings and superstitions . . . Hillbillies had a great sense of humor, usually humor of character which was often pungent." Their droll style of humor was closely related to the British humor of understatement, although they were very capable at weaving tall tales. They were also notorious for gulling or greening outlanders, but were, for the most part, an honest folk and considered their word final and binding.



Postcard from Home, Sweet Home



These people, while living in harmony with nature and wresting a living from the land, survived war and bushwhackers. With wizened skills and stubborn independence they rode above those who would exploit their labor and belittle their accomplishments.

Times have changed. The isolation that kept the Ozarks unique is frail. But there still are descendants of the old Ozarker around. You may not be able to identify them by their dress or style of living, but then those were never true determining factors. No, an Ozarker is the person whose eyes shine when he describes his homeland; the person who chooses rocky bluffs over fertile lowlands and air sweet with the scent of dogwood over high wages. He is not the person trapped by ignorance and poverty, but rather the person imprisoned by love for a rare work of beauty.

When I hear someone suggest that backwardness or fear hold people here, I too wonder. Perhaps it does hold some. But then I remember. How in winter the frosty grasses break beneath my feet and forests stand black against an ice blue sky! How spring comes early, bringing fragrant blossoms and the rushing maraud of swollen streams singing the song of new beginnings! I've walked in a summer fairyland where the sun's rays slip gently through the leafy fingers of trees, lighting warmly on mossy banks. And I've felt the autumn sun and breathed the autumn air, dense with the aroma of oak leaf and wood smoke. □ □



The following piece is excerpted from the introduction to the bioregional bundle *Home, Sweet Home: An Ozark Sampler*. The bundle contains a wealth of resource information about the Ozarks as well as posters, a crystal, postcards, a record, poems, and photos (as well as the essay above). New Life Farm (Box 129, Drury, MO 65638) publishes the bundle (\$12.50 ppd.). For more information about the Ozarks, subscribe to *Talking Oak Leaves* (quarterly, \$2/year from PO Box 187 HSJH, Springfield, MO 65801) or *Ozarkia* (quarterly, \$10/year from Eco Center, 730 West Maple, Fayetteville, AR 72701). —TK

# HOME, SWEET ♥ HOME ♥ an Ozark Sampler

by Denise Henderson

It is a challenge to take the essence of a bioregion and put it in an envelope. But this sampler tries to do

just that. . . . *Home, Sweet Home* can be enjoyed by anyone, but it was created especially for the people of the Ozarks. Its purpose, besides entertainment, is to foster a new type of Ozark self-awareness, a kind of regional pride, which we call bioregionalism. . . .

The Ozarks are easily recognizable as a bioregion. They are an ancient plateau bounded and cut by several important rivers and their tributaries. It is fragmented politically by five states; the greatest areas are in Arkansas and Missouri, and the region touches into Oklahoma, Kansas and Illinois. Despite this, the natural integrity of the region remains. Hills and "hollers," spring-fed streams, and thick forests lush with greenery and wildlife are among the Ozarks' identifying characteristics. . . .

Most of us love our homes and want to protect and improve them. If we extend our thinking to include a whole region as "home," instead of just a house, we begin to glimpse the bioregional perspective. There are people here, your neighbors, who are actively studying and trying to protect the natural systems of the Ozarks. Many are using their expertise to design and build human systems that follow natural law. Among them are water quality consultants, solar home builders, organic food producers, and holistic health practitioners. *Home, Sweet Home* is the result of a collective effort by a number of these people to produce a resource tool for the Ozarks that informs and inspires. *The Green Pages* is the directory for goods and services from businesses that uphold the bioregional perspective. The bibliography is another resource which covers many facets of the whole bioregion. Glimpses of how we can utilize, protect, and enjoy the Ozarks' natural resources are provided in "Regional Seasonal Diet," "Some Beneficial Ozark Herbs," and the water quality brochure. David Haenke's "Varmint Garden" and Ron Hughes' "Ozark Mountain Mother Earth News Freak" (45 rpm) lighten up the packet with a little humor. Jacqueline Froelich's professional graphics and calligraphy make the geology poster, the map, and the Ozark Seasons poster worthy of any wall. Insights into the present and past Ozark culture can be found in native Ruth Downen's inspirational essay "The Ozarks" [excerpted above] and Sandy Primm's prose "En Route to Newburg." And the cultures of ancient inhabitants are described in "Native People of the Past, Ancient Cultures in the Ozarks" by Bob Liebert.

We hope that *Home, Sweet Home* presents you with a view of the Ozarks from a new perspective. If Ozark people can take a new look around our homeland and make a conscious effort to think and act with a bioregional perspective, maybe we can turn around some of the ravages of the past; the logged-out forests, eroded pastures, gravel-choked rivers and sewage-fouled lakes can be restored, and the beautiful and balanced ecosystems of the Ozarks can be preserved. And we and our children can still live a full and abundant life in this beautiful place using the same natural laws that made the Ozarks beautiful in the first place. □ □



# Pacific Northwest Bioregion Report



BOB BENSON

## Bioregional Network Develops Goals

On April 7, 11 hearty souls hailing from Puget Sound to the McKenzie River gathered at the Rain Community Resource Center and outlined goals for developing sustainability in the maritime Northwest. The elusive issues of Pacific Northwest bioregional borders and an appropriate name for the damp territory west of the Cascades received inconclusive discussion. Here is a sampling of five-year goals the group brainstormed for the bioregion west of the Cascades between Eugene, Oregon, and the southern Puget Sound area (unless otherwise noted):

**Economics:** An ecologically and socially responsible banking system; a corresponding trust fund for bioregional projects; region-wide investment criteria; a regional currency based on a regional commodity or kilowatts; an import replacement program similar to the producer-retailer matching in Eugene (see RAIN X:4, page 34); a plan for appropriate trade with Canada and Pacific Rim countries

**Timber:** Plant more trees than are harvested; ban virgin timber harvesting; as much timber land owned within the region as possible; wilderness areas forming a continuous system

**Radioactivity** (including the interior Northwest): Nothing radioactive, except for medical purposes; group to consult June 7 meeting of 35 Native American nations at Yakima nation regarding the Hanford question

**Energy:** Adjust demand to meet

supply; live within hydroelectric base; weatherize/insulate every home and building; low-interest renewable-energy loan fund available to all; rate structure reflecting true costs; rely on regionally produced renewable fuels  
**Food:** Determine percentage of food imported and exported; tax or economic incentive to grow food at home; incentives for producing region-specific food to replace imports; producer-consumer loan funds (see RAIN X:2, page 32)

**Shelter:** Energy and water self-reliant new houses; computer databases of indigenous materials and costs; access to solar exposure; durability standards for life of building

**Communications:** Bioregional news service and computer bulletin board; interlibrary computer network; quilt and wine exchanges with other bioregions

**Transportation:** coordination between different systems; cheap, environmentally sound mass transit; environmentally sound goods transport; computerized ride boards between communities

**Natural Resources:** Determine depletion levels; assess carrying capacity; build sustainability levels into economic plans and decision-making (such as social investing); a total waste-stream recycling plan

**Water:** Develop minimum stream-flow and aquifer-use standards; establish strict pollution and radioactivity levels

The group agreed this brainstorm list would be made available, if called upon, at the North American Bioregional Congress near Kansas City,

*Bioregion—a continuous geographic area seen in terms of similarities of plant and animal life and climatic and geological characteristics... and a terrain of consciousness—a place and the ideas that have developed about how to live in that place. —Peter Berg*

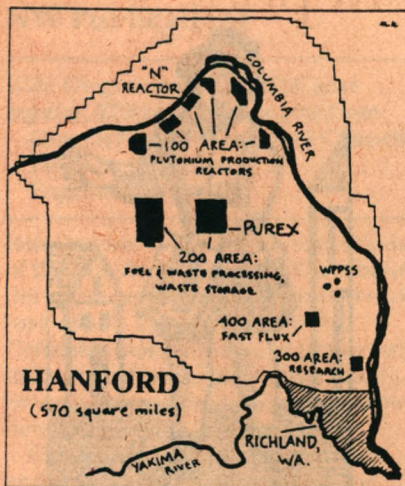
Missouri, May 21-25 (see RAIN X:3, page 30). Participants briefly discussed proposals for developing a maritime Northwest "bundle," a bioregional curriculum guide for high schools and colleges, a bioregional slide show, and a bioregional speakers' bureau.

Thirty people representing 17 organizations attended a bioregional meeting in Seattle on March 31. Catherine Burton reported that participants had difficulty thinking in bioregional terms. They brainstormed what the group could begin contributing to bioregional awareness. Proposals included establishing regional consultant teams (agriculture, peace, and so on, combined) and regional education projects; developing a series of indices pointing out the relative health of the region; and convening a bioregional congress in two years. Contact Dave McCloskey (206/285-7342) or Catherine Burton (206/324-6333) at 2151 7th Avenue West, Seattle, WA 98119.

At a meeting in Clinton, Washington, on May 13, participants decided to use RAIN's Northwest Bioregion Report as the communications vehicle for the Northwest bioregional movement rather than starting a separate publication. Using the same principle of working with something that already exists rather than starting something new, the group decided to use the upcoming Tilth Jamboree as an opportunity for a bioregional gathering. The jamboree, celebrating Tilth's 10th anniversary, is scheduled for September 28 to October 2 near Ellensburg, Washington. For further information, contact Michael Pilarski, PO Box 1064, Tonasket, WA 98855.







### Hanford/PUREX Organizing

Located north of Richland, Washington, four hours east of Portland on the Columbia River, is the Hanford Nuclear Reservation, the world's largest nuclear complex, comprising 570 square miles.

In November 1983 the PUREX (Plutonium-URanium EXtraction Plant) was reactivated at a cost of \$150 million (see RAIN X:2) to reduce irradiated fuel rods from Hanford's N Reactor to a plutonium solution for use in the production of nuclear weapons. This January, the PUREX plant experienced a two-week-long leak of radioactive thorium from a plant smokestack. A Hanford spokesperson reported that the thorium leaks "pose no hazard to the public" and stated that more radioactive materials (including plutonium and strontium) will continue to leak from the plant in small amounts. Also, in a new standard established by the operators of the plant, a new thorium release limit was set—specifying an amount *higher* than that released into the atmosphere in January. Under the new standard, releases like the one in January will not be recorded in an "unusual occurrence" report to the U.S. Department of Energy.

Concern over radioactive contamination of the environment, and the social and economic problems associated with weapon-building, has prompted a regional organizing effort focused on the Hanford facility. The Northwest Action for Disarmament has formed a special Task Force on Hanford. It plans to do an organizing tour through communities on the Columbia River this summer in an effort to generate more concern about Hanford's activi-

ties. Northwest Action for Disarmament, Box 4212, Portland, OR 97208; 503/295-2101.

The Hanford Oversight Committee, based in Washington state, is focusing on Hanford's high-level-waste repository. It has developed a slide show that illustrates the problem. Hanford Oversight Committee, 814 NE 40th, Seattle, WA 98105; 206/632-0500.



### Land Trust Exchange

Three years ago, Oregon Community Land Trust (OCLT) was founded by a group of people interested in furthering and protecting the connections between people and land. Based on the belief that a community land trust can empower a community to care for the preservation and use of its land, the community land trust takes the form of a group of people joined to protect land that has been trusted for use by members of the community. The "trusting" process transfers ownership from the private into the quasi-public realm of a nonprofit land-trust corporation. The trust's land is made available for community members through a long-term lease agreement, and members make decisions cooperatively regarding the use of trusted land.

The OCLT in Eugene serves as a resource center for people who want to know more about a community land trust and how it could work in their situation. Inquiries range from single land owners looking for ways to protect their land from development pressures, to intentional communities looking for a way to state their shared land ethic; from community activists looking for ways to house low-income people, to organizers looking for ways to address the issues of land use and local control.

In addition to their information services, OCLT produces a newsletter, and recently it has helped sponsor a VISTA volunteer who will assist in the formation of an agricultural land trust in Lane County. With a focus on

under-capitalized people, the project aims to form a land-trust corporation with tax-exempt status, while securing funding and land to make available to people who will farm it. The challenge of the project is two-fold: to protect the precious soil for growing food, and to show the community that it is to their economic and aesthetic advantage to do so. Contact OCLT to see how you can become involved. OCLT, PO Box 295, Eugene, OR 97440.

### Sasquatch Gets Protection

At last, that elusive, apelike creature commonly known as bigfoot has been granted a legal sanctuary in the Pacific Northwest. All three commissioners of Skamania County, a largely rural area in Washington bordering the Columbia River and inhabited by many Native Americans, voted recently to make killing a Sasquatch in the county a misdemeanor. Such a crime is punishable by up to one year in jail and a \$5,000 fine. Sasquatch is the only creature on the endangered species list of Skamania County. Now, if we can only convince the Oregon and Washington legislatures...



### Oregon Country Fair

What's become a Northwest tradition, the you've-got-to-experience-it-once Oregon Country Fair, will provide three days of playful enjoyment, wholesome food, and arts and crafts July 13 to 15 (see "Not Just a Country Fair" by Camille Cole, RAIN IX:6/X:1, page 53). The fair features the Community Village of nonprofit organizations, which offer workshops and activities on everything from beekeeping and herbology to New Games and massage. Follow the signs west of Eugene on highway 126 to Veneta. For details, contact the fair at PO Box 2972, Eugene, OR 97402; 503/345-1163.



## Wilderness Conference

The eleventh Northwest Wilderness Conference, titled "Our Unfinished Work," was held at Seattle Center April 27 to 29, and commemorated the 20th anniversary of the passage of the Wilderness Act. The conference, which was videotaped by volunteers, was the first since the tenth biennial conference held in 1974. Speakers included Gaylord Nelson, Chairman of the Wilderness Society; author and journalist Michael Frome; Brock Evans, National Audubon Society vice-president; and David Brower, Chairman and founder of Friends of the Earth. The conference featured films, including academy-award winner "The Last Redwoods," as well as round-table discussions on topics ranging from timber-sale economics and roadless areas to desert wilderness.



## Peace & Life Work

Pacific Life Line (PLL) is a Northwest peace organization founded in March 1983 by a group of educators and artists in Oregon and Washington. PLL, a nonprofit corporation dedicated to seeking nonmilitary solutions to human problems, is currently working on two projects.

First, it is sponsoring a peace walk called Life Plus, World Tour for Peace and Reconciliation. The participants are scheduled to leave Seattle in August 1984 and to cross the U.S. by November. Life Plus participants also plan to go to Western Europe and eventually the Middle East. The intention behind the world tour is to awaken people to alternative approaches to problems. The participants

will bring a 12-step program for nonmilitary settlement of conflicts.

PLL's second project is to establish Pacific Life Education Centers in various Oregon and Washington communities. The centers will serve as peace education and training offices, community meeting houses, and resource facilities. They will house peace libraries, coordinate regional activities, and manage a Northwest speakers bureau.

The fundamental credo of PLL is that peace work is life work. PLL engages in transcultural and consciousness-raising educational activities and defines its approach as anthropological, as well as merely political. It considers political questions within the larger perspective of human needs and aspirations, rather than within limited ideological frameworks.

In Corvallis (Oregon) and vicinity, PLL has been working since December to convert a 20-foot bus into a combination peace bookmobile and traveling forum, to serve the smaller communities of Lane, Linn, and Benton counties. During the summer, the vehicle will operate out of the Pacific Life Education Center planned for Eugene, Oregon.

For more information, contact PLL, PO Box 2049, Corvallis, OR 97339.  
—David Sparenberg

*David Sparenberg is the project director of Pacific Life Line.*

## Neighborhood Recycling

The city of Olympia is experimenting with a neighborhood recycling-collection system. It has purchased mobile dumpsters and added compartments for depositing tin, glass, newspapers, and aluminum. Neighborhood associations will hand out reminders to residents about the schedule and the location of the dumpsters. Those assisting the city with promotion and operation of the program will be paid the money generated from the sale of recyclables.

Steve Barger, coordinator of the Citizens' Advisory Committee on Recycling, said the city council recognizes the long-term economic benefits of backing the recycling plan. After researching curbside pick-up programs, it decided to start with a weekend collection system—complemented by educational radio and newspaper spots—and eventually move to a city-wide collection service. Details from Steve Barger, 1617 Sylvester Street, Olympia, WA 98501.



## Neighborhood Mediation

Your next-door neighbor's dog barks incessantly, keeping you up all hours of the night, and harasses you when you walk past the house. All personal attempts at resolving the problem and amending relations fail. What do you do? You could call the police, or even take the neighbor to court. But think about this alternative: Call your neighborhood mediation center and request a mediation hearing to work out a solution to the problem.

Now in its fifth year, the Neighborhood Mediation Center of Northeast Portland provides such an alternative. With a staff of several mediation specialists and volunteers who are trained to be impartial intermediaries, the center has met with much success. Its conciliation and mediation services are available free to Portland residents who have disagreements.

Most problems handled at the center involve minor civil disputes; complaints include property damage, trespassing, animal control problems, littering, and noise. When the center is contacted about a dispute, a staff mediation specialist contacts the complainant and determines if the issue is one that can be handled by volunteers. If the case is accepted and both sides agree to a hearing, a volunteer is assigned to try to resolve the dispute in a meeting lasting anywhere from 30 minutes to eight hours. The objective is to arrive at a written settlement signed by each person involved. Approximately 90% of the cases are settled without further mediation or police action. Neighborhood Mediation Center, 4815 NE 7th Avenue, Portland, OR 97211; 503/284-2829.



## NW Publications

**Wild Oregon, quarterly, \$25/year regular, \$20/year low-income from:**  
Oregon Natural Resources Council  
1161 Lincoln Street  
Eugene, OR 97401

Want to know what the current status of the Middle Santiam is? What about the endangered northern spotted owl? Just what is happening with the Columbia Gorge? Will it be preserved in its present state? And what is the process through which its fate will be determined?

Open up any issue of *Wild Oregon*, and you'll find questions like these answered thoughtfully and thoroughly. The Oregon Natural Resources Council publishes *Wild Oregon* to monitor the status of Oregon's natural resources. Although the focus is public lands and the legislation involved in protecting those lands, its scope is quite broad. Recent issues of the journal have featured articles on

Oregon's threatened wildlife, reports on the controversy surrounding federal grazing fees, a profile of several different proposed desert wilderness areas, and even a report on German forest management.

This journal is an important resource for those who want to be in touch with the way Oregon's lands, waters, and natural resources are being managed. —CB

**Environmental Outlook, monthly, free from:**

Institute for Environmental Studies  
Engineering Annex, FM-12  
University of Washington  
Seattle, WA 98195

This four-page newsletter, produced by the Institute for Environmental Studies (IES) at the University of Washington, abounds with good information. Recent issues have featured articles on environmental mediation, genetic conservation, the

EMP effect from detonating nuclear weapons, and a report on current research using honeybees and pollen to trace the distribution and presence of heavy metals in the environment. The newsletter also reviews notable publications (including government reports and academic papers) on environmental matters, and runs a newsy column called "IES People" relating current lectures and research efforts of UW faculty.

Perhaps the most valuable aspect of *Environmental Outlook*, though, is the extensive and detailed calendar announcing a wide range of Northwest events—seminars, conferences, classes, lectures, hearings—that have an environmental focus.

Although it is somewhat academically top-heavy, *Environmental Outlook* is an excellent no-frills, information-oriented publication, giving Northwest environmentalists in all arenas (government, academia, and public-interest groups) vital access to current trends, issues, and research in the environmental field. —CB

## NW Briefs



**Weatherize Yourself!**—It's not too early to think about weatherizing your home. Cash rebates are available through September 1984 to help Oregonians who heat only with oil, propane, or wood to weatherize their homes. Households that meet certain low-to-moderate-income guidelines may be eligible for a rebate of 50% of the cost of the work. To help finance the other half of the weatherization work, low-interest loans (4¼% and 6½%) are also available to eligible applicants. Call the Portland Energy Saving Center at 248-4636 or ODOE toll free at 800/221-8035.

**Map Information**—The Oregon State Library, an affiliate of the National Cartographic Information Center (NCIC), recently joined forces with the University of Oregon Map Library to provide broader access to cartographic information and coordination of map-ordering assistance to Oregonians. As an NCIC "satellite" affiliate, the U of O map library will make its map specialists and materials available for interlibrary-loan backup and reference assistance to the state library. Questions? Call Craig Smith, Oregon State Library, 378-4277.

**Fungophiles Unite**—*Mush Rumor* has it that there are a good number of mycologically minded folks in the Northwest. If you're one of them but have yet to connect with the Northwest's mushrooming network, contact the Oregon Mycological

Society (6548 SE 30th Avenue, Portland 97202) or the Puget Sound Mycological Society (2559 NE 96th Street, Seattle 98115) to find out about a mycological society in your area. (There are nearly 20 such groups in Oregon and Washington alone!) With membership in the Oregon Mycological Society (\$6/year), you'll receive a quarterly *Mush Rumor* newsletter announcing weekend mushroom forays and monthly lectures (everything from mushroom art to commercial cultivation of 'shrooms). A recent issue contained a report from the Toxicology Committee on local poisonings, recipes, an announcement of an 18-day mushroom study tour of Japan, and a mushroom poster offer, among other things.

**Recycling**—Two fact sheets are now available, through the Department of Environmental Quality, on Oregon's Recycling Opportunity Act (SB405) and hazardous-waste management in Oregon. For copies, call 1/800/452-4011 or write DEQ, PO Box 1760, Portland, OR 97207.

**Neighborhoods**—The 1983 *Neighborhood Information Profile* is hot off the press. The 360-page manual contains profiles of Portland's 75 neighborhoods, including demographic characteristics, data from city bureaus, a citizen survey, and visual inspections of housing and street conditions. Cost is \$10 for the complete manual and \$5 for information broken down by

district (inner SE, outer SE, inner NE, outer NE, downtown, and SW). Call Services Research Division at 248-4697 in Portland.

**Railways**—The Oregon Association of Railway Passengers and the Washington Association of Railway Passengers are actively working to promote the use of Amtrak and improve its service. Both groups have chapters state-wide. Members communicate with officials at all levels of government and with transportation companies and agencies. OreARP, PO Box 2772, Portland, OR 97208; Wash-ARP, PO Box 7381, Bellevue, WA 98008.

**An Environmental TV Channel in Portland?**—In 1981, when the City of Portland signed a contract for a franchise with Cablesystems Pacific, some provisions called for a local TV channel that would focus exclusively on environmental issues. The original plan included in the contract would have put eight hours of environmental programming on the air every day. At present, however, Environment Northwest on Channel 29 offers only printed (rather than spoken) messages on environmental issues. To help make the original plan a reality, send a letter expressing your interest to the Cable Regulatory Commission, 519 Portland Building, 1120 SW 5th Avenue, Portland, OR 97204, or to the City Council, 1220 SW 5th Avenue, Portland, OR 97204.



# ADVERTISING

## RAIN Advertising Policy

RAIN accepts both classified and display advertising. Classified ads cost 30¢ per word. As a special service during these times of high unemployment, work-related ads (see "Worthy Work") are only 15¢ per word. Prepayment required.

All ads are accepted at RAIN discretion. The advertising of products and services in RAIN should not be considered an endorsement. RAIN is not responsible for product or service claims and representations.

For information on display ads and a rate sheet contact: RAIN Advertising Dept., 2270 NW Irving, Portland, OR 97210; 503/227-5110.

**RAINHOUSE VOLUNTEERS:** Organizers, networkers, and interested people needed to help manage and pass on the tidal wave of information that daily surges through RAIN. Continuing commitment or one-time. Portland-based. Call RAIN, 227-5110.

**SPECIAL OFFER to RAIN readers**—a trial issue of the new quarterly **FARALLONES INSTITUTE JOURNAL** and current educational offerings. Updates on Institute activities, programs, and changes; workshops in edible landscaping, integrated design, and more. Try us! Write: Free Offer, 15290 Coleman Valley Road, Occidental, CA 95465.

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**I'D LIKE TO TALK** with people knowledgeable about building successful small spiritual, agricultural communes. Also people building underground houses in Northern California. Marigold Arnold, PO Box 188, Willits, CA 95490.

**METAPHYSICAL SUPPLIES:** Books, jewelry, accessories. For 100 pg. catalog send \$2.50 P.M.O. to R. Brass Unicorn, 135 N. Van Ness, Fresno, CA 93701.

## Worthy Work

**RAIN INTERN PROGRAM:** RAIN's intern program enables staff interns to gain a thorough knowledge of magazine publication and resource center operation. The work is a mix of activities, including promotion, library and office maintenance, information requests, publicity, and local education or organizing efforts. Applicants must be self-motivated and able to work with minimum supervision; technical skills are appreciated, but not necessary. A three-month commitment is required. Benefits include a stipend of \$40 a week and the excitement of being in touch with the latest information from around the country. Send resume to Rob Baird, RAIN, 2270 NW Irving, Portland, OR 97210.

**COOKSTOVE NEWS** needs Business Manager to research, compile, edit, fundraise, organize volunteers for small but influential international journal. Excellent opportunities to develop financially; food/housing/pocketmoney initially; prospects of salary depend on energy to make this a self-supporting project. Rural location in spectacular mountain scenery. Need to be dedicated, concerned about world's fuelwood crisis and Third World women. Aprovecho Research Center, 80574 Hazelton Road, Cottage Grove, Oregon 97424; 503/942-9434.

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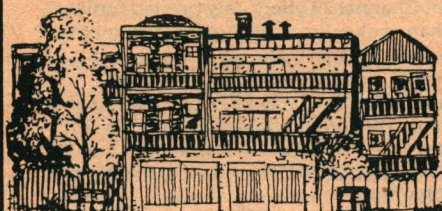
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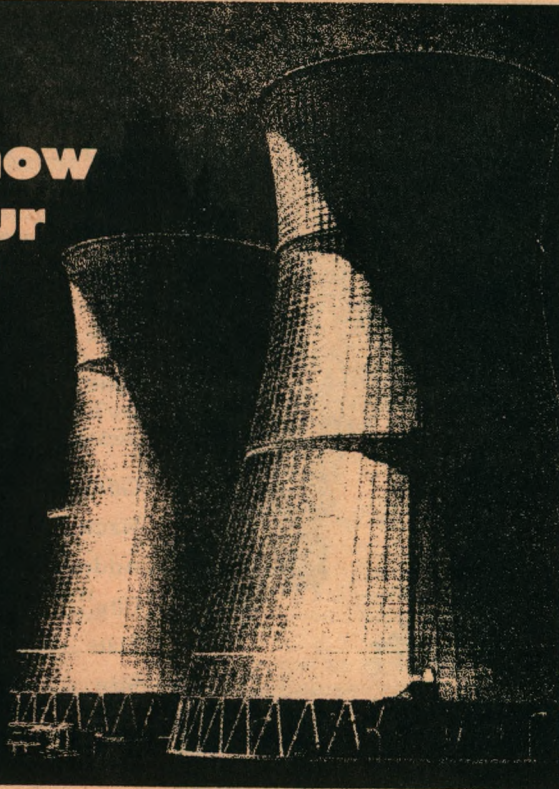
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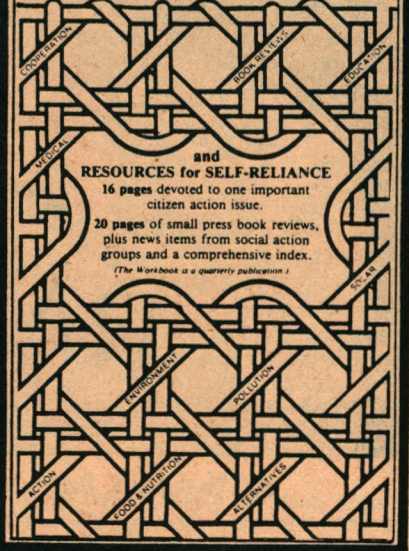
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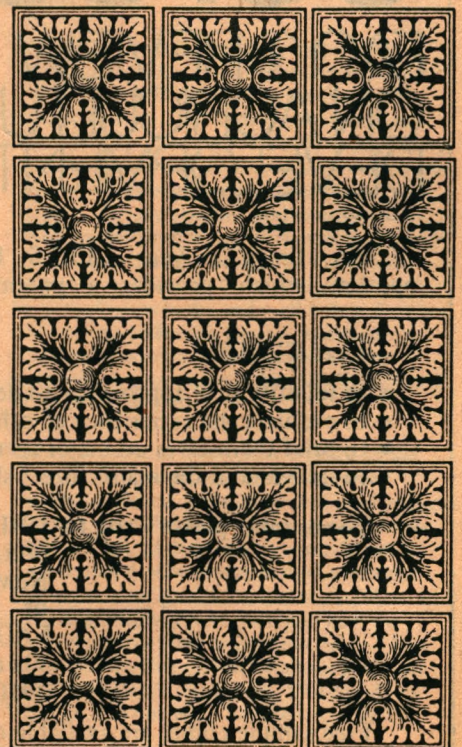
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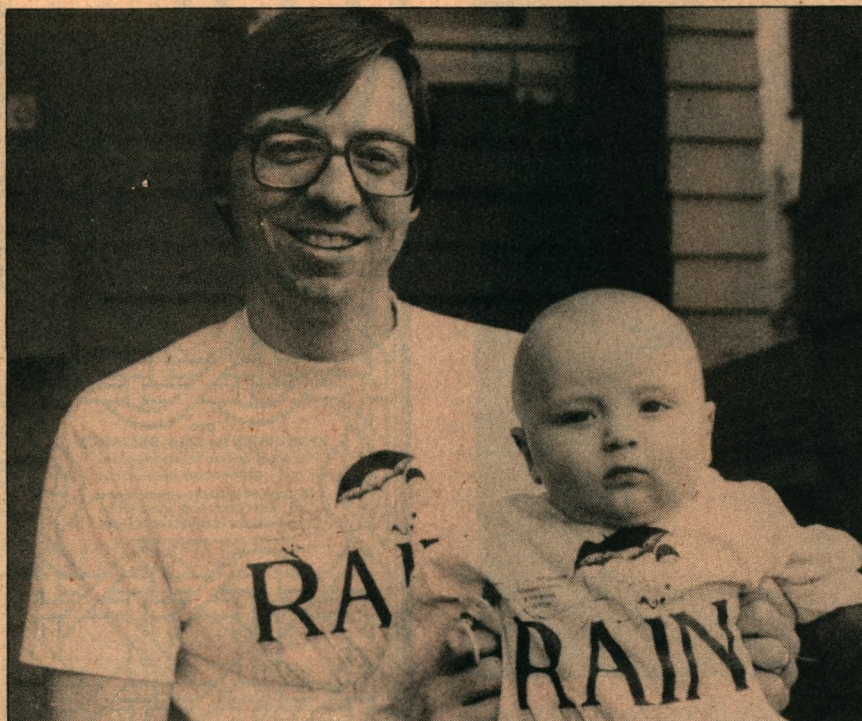
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# CALENDAR

Auckland, New Zealand, will be the site of the **International Solar Energy Society's** annual conference, from August 23 to 25, 1984. The aim of the conference is to provide a forum for the exchange of ideas in the broad field of solar energy utilization. The formal sessions of the conference will embrace a wide range of topics, such as passive solar systems and construction, photovoltaics, solar thermal power systems, solar ponds, solar thermal collectors, resources and nontechnical issues, biological-related processes and wind systems. For registration, contact the Conference Secretary, I.S.E.S.—A.N.Z. Conference, Centre for Continuing Education, University of Auckland, Private Bag, Auckland, New Zealand.

To bring together organic farmers, gardeners, and consumers interested in eating uncontaminated food, the **Natural Organic Farmers Association (NOFA)** will hold its tenth annual Conference and **Celebration of Rural Life** August 3-5 at Franklin Pierce College in Rindge, New Hampshire. Reflecting NOFA's philosophy of "thinking globally, acting locally," speakers will report on agricultural developments in China, Africa, Mexico, and Central America. Workshops on small-scale organic agriculture, marketing for organic growers, homesteading, and bioregionalism will complement the international reports. Keynote speaker Catherine Lerza, co-author of *Food for People, Not for Profit*, will speak on nation-wide grassroots activism on behalf of alternative agriculture. For more information, contact June Francis, 10th Annual NOFA Conference Organizer, PO Box 335, Antrim, NH 03440; 603/588-6668.

With the theme "**Planting the Seeds of Change**," the Fellowship of Reconciliation's 1984 national conference will focus on the role of nonviolence in the struggle to achieve jobs, peace, and freedom for everyone. Fundamental to this struggle is the willingness of pacifists to be open to risk, and to plant the seeds of change with the faith that they will grow and blossom. The conference will explore the roots of unemployment, militarism, and inequality in America. Randall Forsberg, author of the *Bilateral Nuclear Freeze Proposal* and director of the Institute for Defense and Disarmament Studies, and Dolores Huerta of the United Farm Workers, will be among the keynote speakers. Workshop topics include domestic issues of the arms race, radiation victims, and the impact of militarism on the Third World. The conference will be held at the University of Santa Clara, Santa Clara, California, from July 18 to 22. For more information, contact Nora Hallett, FOR, Box 271, Nyack, NY 10960.

An international open forum where men and women gather for a month each summer to investigate the underlying concepts of contemporary society from the perspective of democracy, the **Institute for Democratic Alternatives**, will host a variety of events this summer in Augusta, Maine. Formal course offerings include: Ivan Illich: *Toward a History of Scarcity*, Organizing and Nonviolence, and

Issues in Adult Education. In addition to the courses, the institute will conduct a month-long camp that will provide facilities for an "open university" where anyone can offer or take a course or participate in a seminar for a minimal fee. On July 28, the Maine chapter of Common Cause will conduct a one-day conference focusing on peace issues, asking questions such as "Is peace possible within 'economic' society?" and "What are the institutional and ideological obstacles to peace?" Sponsors of the institute are TRANET, Maine Common Cause, and the University of Maine at Augusta. Contact Susan Hunt, West Ripley Publications, Route 3, Box 650, Dexter, ME 04930.

Consumer cooperatives of all kinds—food, housing, child care, energy, worker co-ops and more—will be the topic of a five-day training and networking conference August 14-18. The Consumer Cooperative Alliance's annual Co-op Institute, this year entitled "**Bringing Co-ops into the Real World**," will be held at rural Ramapo College in northern New Jersey. For information on costs, agenda, budget plans, and travel coordinators, write to CCA Co-op Institute, Matthew Chachere, Institute Coordinator, 24 North Lane, Glen Cove, NY 11542; 516/674-4981.

**New Alchemy Institute** celebrates its **15th birthday** this summer with a series of guest lectures in addition to its traditional Farm Saturday fare. The celebration will culminate with a Harvest Festival on August 18, a day of workshops, lectures, music, and fun. Write to New Alchemy for a full listing of one-day courses. A small sampling includes: Integrated Pest Management for the Home Garden, Computer-Aided Building Design, and Edible Landscaping. The New Alchemy Institute, 237 Hatchville Road, East Falmouth, MA 02536; 617/563-2655.

Since 1980, Children of the Green Earth has been helping schools, teachers, parents, and youth leaders throughout the Pacific Northwest to develop creative tree-planting programs for their children. From July 22 to 27, it will sponsor the **Green Earth Camp** at Breitenbush Community in Detroit, Oregon. Designed to provide intensive training in a variety of skills for working with children in nature, the program will cover ways to guide children more effectively in the outdoors; the use of stories, folklore, games, and arts and crafts to enhance teaching methods; and ways to make tree planting a practical and inspiring part of the children's lives as they become a part of the growing world-wide family of tree planters. For more information about the program, contact Children of the Green Earth, 7635 Tye Road, Umpqua, OR 97486; 503/459-3122.

The **Center for Popular Economics** in Amherst, Massachusetts, is offering a one-week course on economics for: activists; women's and national minority organizations; religious, peace, and anti-intervention groups; community organizations; the environmental movement; and other groups working for social

change. Through two one-week sessions (July 29 to August 4 and August 19 to 25) held at Hampshire College, the Summer Institute for Popular Economics will provide activists with economic knowledge and skills that will help them in their organizing and political work, and in combatting "new right" economics. For further information, contact Betsy Hamilton, Center for Popular Economics, Box 785, Amherst, MA 01004; 413/545-0743.



Celebrate **Smokey Bear's 40th birthday** on August 9. The Forest Service is sponsoring a year-long celebration. For details on local events, contact local offices of the Bureau of Land Management, state forestry offices, local fire cooperatives, or the USDA Forest Service.

Hollyhock Farm in British Columbia, a community and educational institute centered around the ideas of whole living, harmony with nature, and the interdependence of life on all levels, offers a summer workshop program involving the **practical, creative, and healing arts**. Hollyhock Farm, Box 127, Manson's Landing, Cortes Island, BC, V0P 1K0, Canada; 604/935-6465.

The Breitenbush Community at the Hot Springs will be the site for the two workshops this summer—**Edible Landscaping** and an **Herbal Retreat**. The Maritime Permaculture Institute is sponsoring the Edible Landscaping workshop from July 29 to August 3, which will cover the uses of edible plants as shade trees, borders, privacy screens, and windbreaks. This five-day design course is oriented toward practicing landscape designers. Herbalists from all over the west coast will gather August 10-12 to discuss herbs and well-being. Sessions will address technical, clinical, spiritual, and ceremonial aspects of herbology. Contact Breitenbush Community, Box 578, Detroit, OR 97342; 503/854-3501.

The Concourse at Showplace Square in San Francisco will be the site of **A Vision of America at Peace**, a major exhibition of images of peace, July 13-19. The Democratic Convention will be held that same week in Moscone Center, just five blocks from the Concourse. The organizers' goal is "to create a brilliant and enduring vision of how life could be if the world were in a state of genuine peace." For more information, contact Michele Sudduth, VISION Project Coordinator, Ground Zero/ VISION, PO Box 9820, Berkeley, CA 94709; 415/486-0233.



# RUSH

**Aid to Nicaragua**—The *Fri*, flagship of the Nicaragua Peace Fleet, departed from St. Augustine on May 5 with a cargo of 50 tons of medical and material aid for Nicaragua. Organizations participating in the project include the National Council of Churches, American Friends Service Committee, Oxfam America, the Ed and Nancy Asner Family Foundation, the Central America Health Rights Network, and the Witness for Peace project. A film will be made to document the entire journey. For more information, write to Nicaragua Peace Fleet, PO Box 906, St. Augustine, FL 32085-0906; 904/824-4574.

**Internships in Self-Reliance for Small Cities**—The Community Environmental Council of Santa Barbara, California, announces its Urban Laboratories Residency Intern Program. As part of the Santa Barbara 2000 Project, interns assist in an effort to research and demonstrate principles of local self-reliance in small cities. Research subjects include resource recovery, energy management, agriculture, land-use planning, and regional economic development. Internships operate on a quarterly basis; interns are responsible for their own living expenses. Academic credit may be available. Urban Laboratories Intern Program, Gildea Resource Center, 930 Miramonte Drive, Santa Barbara, CA 93109; 805/963-0583.

**Conservation of Genetic Resources**—Traditional crop varieties, developed and nurtured by our ancestors, are being replaced and driven into extinction by new varieties, according to the newly formed International Genetic Resources Programme (IGRP). Today, we stand in grave danger of losing agriculture's diversity, the legacy of 10,000 years of agricultural history. The genetic resources found in traditional crop varieties and their botanical relatives constitute the foundation of agriculture. Plants and animals use this natural diversity to maintain pest and disease resistance. Without genetic diversity, agriculture as we know it would be severely threatened.

The IGRP has recently formed to address this problem. Through the development of a network of organizations and individuals working together to preserve agricultural resources, by monitoring the seed industry's activities and documenting cases of genetic erosion, and by initiating campaigns to educate policy makers and the public, IGRP hopes to reverse this alarming trend. Among its activities are the publication of a newsletter, *IGRP Report*, for the genetic-resource conservation community; a forthcoming book and a forthcoming slide show on the politics of genetic resources; publication of a seed

directory for North America that provides a list of sources of traditional varieties of vegetables, fruits, herbs, and native plants (\$2 through IGRP's U.S. office); and consulting work on special genetic-resource projects. IGRP, RR1 (Beresford), Brandon, Manitoba, R7A 5Y1, Canada; or PO Box 1029, Pittsboro, NC 27312; 919/542-5292.

**One Million Trees**—In Los Angeles, California, the TreePeople have launched a tree-planting project with the goal of planting one million trees in time for the 1984 Summer Olympic Games. In an attempt to restore the balance between plants, people, and the urban environment, school children, church groups, scouts, neighborhoods, and park departments are marshaling forces to create an urban forest in the Los Angeles basin. Trees, they believe—by filtering the air, buffering wind and dust, reducing erosion, and improving soil—could drastically improve this urban environment. TreePeople, c/o Urban Forest, PO Box 24/1984, Los Angeles, CA 90024; 213/769-2663.

**Poland**—Want to help build local self-reliance in post-Solidarity Poland? An organization called Alternative Poland is requesting books, magazines, and materials for urban food production, alternative energy, and home clothing production. Written material will be translated as necessary, and donated items will be packaged and sent to groups in Poland. Write Alternative Poland, c/o SAMISDAT, Box 129, Richford, VT 05476.

**Grants for Grassroot Projects**—The Peace Development Fund in Massachusetts recently announced the opening of an affiliate foundation in Seattle, Washington—the Pacific Peace Fund. The Pacific Peace Fund will assist the Peace Development Fund in its grant making in the western part of the U.S. Groups west of the Mississippi River should address proposals and requests for information to Pacific Peace Fund, PO Box 45518, Seattle, WA 98145.

**Businesspeople for the Public Interest**—Co-op America is offering a free copy of "Entrepreneurs in the Public Interest: The First Annual MBA Public Interest Resume Book" to its members. The publication contains 37 resumes of graduating MBAs from the top business schools who are committed to pursuing careers in the public-interest sector. The book was prepared by the Corporation for Enterprise Development as a service to socially responsible organizations looking for MBAs for a management position. Contact Co-op America for more information. Co-op America, 2100 M Street, NW, Suite 605, Washington, DC 20063; 800/424-9711.

**New A.T. Information Service**—May 1 marked the birth of the National Appropriate Technology Assistance Service (NATAS), an information and technical-assistance source funded by the U.S. Department of Energy and operated by the National Center for Appropriate Technology (NCAT) in Butte, Montana. NATAS provides three primary services, including general information that will help people investigate or implement energy-related appropriate technologies; engineering and scientific technical assistance; and assistance to appropriate-technology innovators to help them commercialize energy-saving products and services. NATAS' toll-free number has information specialists on-line to answer questions, send out information, or refer inquiries to other sources that could best provide information. Write or call NATAS, U.S. Department of Energy, PO Box 2525, Butte, MT 59702; 800/428-2525 (in Montana, 800/428-1718) on any weekday from 9 AM to 6 PM Central time.

**Peace Toys and Games**—Founded in 1981, The Peace Museum of Chicago is dedicated to providing peace education through the visual, literary, and performing arts. Past exhibitions have included the first U.S. exhibition of original drawings by Hiroshima and Nagasaki survivors; an exhibition on the history of folk and rock music and its relation to peace efforts; and the artist as social critic from the 17th century to the present. From October 14 through January 6, The Peace Museum will present an exhibition on toys and games, focusing on the ways in which toys and games can instill values and shape attitudes. Featured in the exhibit will be alternatives to "war toys," material on new electronic games and video games that are nonviolent, toys of other cultures that promote international understanding, toys that stimulate awareness of issues and understanding of traditional conflicts, and material on racism and sexism in children's toys and games. In addition to workshops for parents and teachers and storytelling hours for children, the museum will also make available a wide range of toys and games for sale. Contact The Peace Museum, 364 West Erie Street, Chicago, IL 60610; 312/440-1860.

**Wings of Conservation**—Project Lighthawk is a nonprofit flying service for conservationists in the western United States. In full-time operation since 1980, the project offers a low-cost alternative for those groups and individuals involved in resource battles in the Rocky Mountain region. Groups have used the Lighthawk's six-passenger Cessna Turbo to increase the effectiveness of their conservation efforts by taking aerial photographs and surveying controversial lands; by policing public lands to monitor road building, drilling, and lumbering; by improving media coverage; and by educating decision makers. For more information on air services or how to support Lighthawk's efforts, write to Project Lighthawk, PO Box 8163, Santa Fe, NM 87501; 505/982-9656.





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